

918 W89

Woods \$2.75
High spots in the
ides.

070610

918 W89

Keep Your Card in This Pocket

Books will be issued only on presentation of proper library cards.

Unless labeled otherwise, books may be retained for two weeks. Borrowers finding books marked, defaced or mutilated are expected to report same at library desk; otherwise the last borrower will be held responsible for all imperfections discovered.

The card holder is responsible for all books drawn on this card.

Penalty for over-due books 20c a day plus cost of notices.

Lost cards and change of residence must be reported promptly.



Public Library
Kansas City, Mo.

Keep Your Card in This Pocket

BERKOWITZ ENVELOPE CO., K. C., MO.

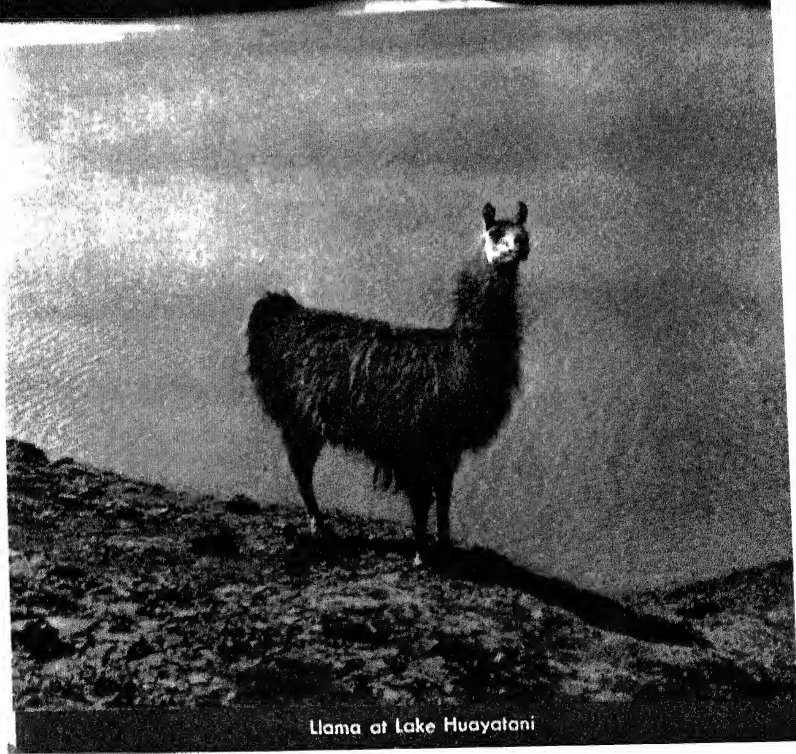
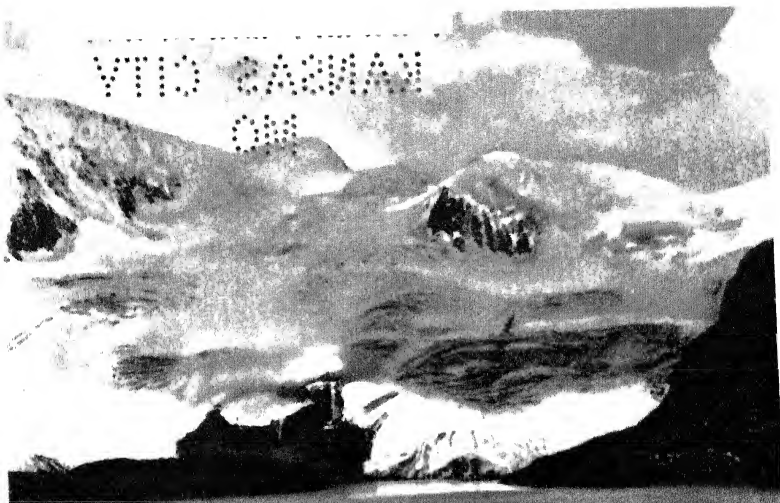
KANSAS CITY, MO PUBLIC LIBRARY

30-4-78

[illegible]

HIGH SPOTS IN THE ANDES

YTD 282141
08



Llama at Lake Huaytani

HIGH SPOTS IN THE ANDES

Peruvian Letters of a Mining Engineer's Wife

BY
JOSEPHINE HOEPPNER WOODS

*With 48 Illustrations
from Photographs*



G. P. PUTNAM'S SONS
NEW YORK

1935

COPYRIGHT, 1935, BY JOSEPHINE HOEPPNER WOODS

All rights reserved. This book, or parts thereof, must
not be reproduced in any form without permission.

BIND-20

PRINTED IN THE UNITED STATES OF AMERICA

Dedicated to

“CLARENCE” BUT FOR WHOSE URGING AND
ENCOURAGEMENT THESE LETTERS WOULD
NOT HAVE BEEN GATHERED TOGETHER NOR
PUBLISHED

CONTENTS

CHAPTER	PAGE
I. RENEWED FRIENDSHIPS	15
II. THE JOURNEY TO BOLIVIA	23
III. THE HUANCHACA MINE—PULACAYO—FIESTAS	37
IV. MORE ABOUT PULACAYO—THE STRIKE—OUR EXIT	59
V. LA PAZ—COCHABAMBA	77
VI. CHOJÑACOTA AMONG THE GLACIERS	95
VII. MORE ABOUT CHOJÑACOTA	113
VIII. CLARENCE'S ILLNESS—SUPERSTITIONS—ON OUR WAY TO SANTO DOMINGO	140
IX. THE SANTO DOMINGO TRAIL	166
X. THE SANTO DOMINGO CAMP	193
XI. BUTTERFLIES, MOTHS, BATS, INSECTS, SNAILS, BIRD, SNAKES, ETC.	227
XII. MISCELLANEOUS "ROUND ROBINS"	257
"Patience"	257
Returning to Peru After Seven Years in South America	266
Losing a Gold Brick	271
"Bootlegging" and Revolution	274
The Big Storm	281
XIII. THE STORY OF THE SANTO DOMINGO MINE	287
GLOSSARY	313
INDEX	317

ILLUSTRATIONS *

Llama at Lake Huayatani	Frontispiece
	FACING PAGE
Mollendo Landing	32
Potosi Hill from the Mint	33
Man Carrying Tin Cup of Bull's Blood to Sprinkle Over Doorpost and Lintel of Mine's Mouth . .	33
High Class Chola, La Paz	48
Indian Boy Selling Candles in La Paz	48
Chuncu Indian Boys, La Merced	49
Coca Plantation, La Paz Yungas	64
Market at Huancayo—Selling Chancaca	64
Aymara Indian and Llama	65
Market, Cochabamba Valley	65
Pinnacles, La Paz	80
"Alacitas," La Paz	81
Plaza Murillo (main plaza), La Paz	96
Beer Wagon, La Paz	96
Making Chuño	97
Huancayo Market	97
Carnival Dance Near La Paz	100
Indian Dancers with Ostrich Plume Headgears, Sorata, Near La Paz	100
Making Pottery, Cochabamba Valley	101
Indian Woman Weaving Poncho	101

* Grateful acknowledgments are made to Mr. C. S. Bell for nearly all the photographs.

ILLUSTRATIONS

	FACING PAGE
Cathedral, Copocabana, Bolivia	108
Road from Tarma to the Chancamayo Valley	109
Crossing the Pass on the Road to Viloca	116
Quimse Cruz Range, Chojñacota	116
Chojñacota Mine	117
Mr. and Mrs. Woods on the Chojñacota Glacier	124
Near Lake Huayatani Returning from Monte Blanco	124
Lake Huayatani ("Resting Place of Geese")	125
Plaza de Armas, Arequipa	148
Near Arequipa—Indian Woman with Baby on Her Back	148
Indian Woman Spinning As She Walks	149
Main Cathedral in Cuzco	156
Harvesting Potatoes Near La Paz	157
Constructing Balsa in Bolivia, Lake Titicaca	157
Sunset, Lake Titicaca	160
Lake Titicaca—Indian Men Have Just Returned from Fishing	160
Ruins of Inca Palace on Island of the Sun, Lake Titicaca	161
"Temple of the Virgins," Island of the Moon, Lake Titicaca	161
Macho River Indians Carrying Log for Santo Domingo Mine	176
Huancarani—End of Auto Road	177
Mr. and Mrs. Woods Crossing One of the Nine Swing- ing Bridges on the Way to Santo Domingo Mine	196
Rear of Casa Santo Domingo at Right	196
Santo Domingo Camp	197
Delving for Gold in the Santo Domingo Mine	197

ILLUSTRATIONS

	FACING PAGE
The "Daily Eggs"—Amalgam—Put in Retort, Ready for Distilling Off the Mercury	204
The Big "Clean-up" That Paid for the Mine	204
"The Mine Is Paid for!"	205

HIGH SPOTS IN THE ANDES

CHAPTER I

RENEWED FRIENDSHIPS

Santo Domingo Mine, May 11, 1931.

MY VERY DEAR BYRDIE-BYRD:

I cannot quite match your hopping for joy—and you having sciatical—on receipt of my card but I could have danced a genuine Nez Percé Indian war dance, exactly like the one we saw at Cul-de-Sac, Idaho, so many, many years ago—for I am sure that you, too, still remember that wild night ride over those terrible roads from Clarkston, Washington, to this annual “powwow”—you, my brother Frank and I in our “one hoss shay,” oblivious of the lurchings and almost capsizings of the phaëton, in our eagerness to see those Indians in their feathers and war paint, beating their tom-toms, leaping in a circle around the huge bonfire, the dancers now in the full glare of the firelight and now in the shadow but chanting incessantly, untiringly “whooping ’er up” for hours and hours until we, wearied of the noise and exhausted from merely watching the magnificently savage scene, slipped away through the darkness and vowed we had enough of Indian dances for that year, at least; but after I read your good, chatty letter, I could have imitated those Nez Percé savages most hilariously—and how my feet did itch to do so!—but I was reading my mail in the same room with the family of our Peruvian agent at Tirapata, “awfully ladylike folks,” who would have deemed me ready for a strait-jacket had I even begun to “whoop ’er up” as those Reservation Indians did.

Tirapata is our railroad station, 140 miles from the mine, and we had but that very morning returned from New York, where we had spent nine very pleasurable weeks, and we were on our way to Santo Domingo after four months’ absence, as we had spent ten days in Lima on the “up” trip and

HIGH SPOTS IN THE ANDES

a week on the "down"; hence this accounts for my seeming delay in replying. We have been home only two weeks and very busy ones have they been.

And you really want a sketch of *all* that has occurred since last we saw each other. Ah! let's not count back all these intervening years, but you proceed to make yourself comfortable, for merely "hitting the high spots" will make the narrative a long one. The last time I saw you was in Colfax and what an open house you and your dear old deaf mother did keep! I remember you waved at me from the porch with your dust-cloth as I was coming up the hill, for you had not yet finished the morning's "tidying up"; Miss Pilcher was on the porch with you, both of you smiling and so happy, both of you still a little self-conscious of the new sparkler on the third finger of the left hand, for you were both engaged, both very much in love, and you, especially *you*, dear Byrdie, were genuinely sorry that I didn't even have a beau!

The next day I left for Pullman to teach at my Alma Mater, the Washington State College, and you were married very shortly afterward. I was excessively busy the next two years, teaching German most strenuously, for I had five classes, the majority of which had no less than sixty husky young "farmers" to answer the roll, for, if I remember rightly, the change from Washington Agricultural College, School of Sciences and Experiment Station to the present Washington State College had not yet been made. At an early faculty meeting "Prexy" Bryan told of the sabbatical vacation arrangement, whereby if one taught six summer schools without pay, the teacher would be entitled to a year off on full salary; three summer schools without pay would give a year's vacation on half-salary, etc. I then and there decided I would teach two summer schools and with my munificent savings, fulfill a dream of going to Europe, a dream I had cherished since I had been a freshman, when Prof. Barry had diagrammed on the blackboard the setting of *L'Arrabiata*, a charming little story in French but laid in Capri, Italy. And do dreams come true? Not only did I have the joyful satisfaction of visiting the Blue Grotto near Capri but many another wish has been realized.

RENEWED FRIENDSHIPS

On daddy's seventy-fifth birthday, he and I started for Europe, going first to Germany, visiting relatives, and where I later matriculated at the University of Berlin; at the end of the semester, with "seven-league boots" I'll take you on a tour through Germany, Bohemia, Austria, Italy, Egypt and the Holy Land, "backtracking" as little as possible on our return but giving you time to catch your breath in two full weeks in Switzerland, where, although the scenery is "breath-takingly" beautiful, yet I am inclined to think the mountains would not be so awe-inspiring to me now, since I have spent so many years in the high Andes. Safely delivering you to your own fireside, I'll hurry on to meet daddy at Bremen, from where we sailed barely in time for me to take up my new duties at the University of Washington, for during my vacationing, Prof. Barry had left W. S. C. and the new Head of the German Department and I were almost sure not to "jibe."

After two happy, fully occupied years at Seattle, we went to California just for the summer but I was persuaded to accept a position in a small mining town and here, in Tuolumne, I met Mr. Woods and Cupid shot his dart.

I was teaching German in Alameda when we entered the Big War but as German became decidedly out of favor after that fateful Good Friday, I took the Civil Service examination at the close of the school year and, shortly after, accepted a position in the Ordnance Department at Washington, D. C. Clarence (Mr. Woods) was doing war mineral work with headquarters in New York and on Thanksgiving Day after the Armistice we were married at my brother Ernest's home in Hastings, Nebraska. I could end now by saying that we lived happily ever after, but my life has been so much more interesting since that happy date nearly fourteen years ago that the real story is just beginning. I'll hurry you through an ideal honeymoon spent in Arizona, mine examination trips to Mexico and Honduras and bring you with us to Los Angeles, where we are visiting my sister Tillie and where my daddy appears to persuade us to go on a farm.

On a forty-five acre tract in the Orland, California, Irrigation Project, we put in three years of unremitting toil; you, Byrdie, have lived on a farm and know something about it

HIGH SPOTS IN THE ANDES

but we, "poor babes in the woods," we had to learn everything: to milk cows, to stack hay, to raise chickens and turkeys, to irrigate; to work so hard that night brought what seemed to us but a few minutes of oblivion, in reality six or seven hours of profound sleep, for the sun never caught Clarence in bed in all those three years, while the chores were rarely entirely finished before nine o'clock. Three whole years of unceasing drudgery!

After the first year, I taught the district school as a side issue, to help make ends meet, but those seven hours in the schoolroom were a relief from the never-ending toil on the farm. I would come home from school to wash the abominable separator (we had eighteen milch cows), to wash the accumulated dishes, to feed the three hundred turkeys and bed them, take care of the chickens and ducks; and then get supper for daddy, Clarence and the hired man. Saturday was baking day: twelve loaves of bread, four or six pies, as many cakes; I washed the clothes, cleaned house and then to town late in the afternoon with Clarence to do the week's shopping; ironing (what little was done) after supper and with old-fashioned sadirons, too, for then, our farm was not equipped with electricity. Yet with all this unaccustomed hard work, we never missed church and we rarely came home without guests.

I have been told many times that I have a flair for languages but Mother Nature remained a closed book to me: I could not see the beauty of a tomato vine for the loathsome worm that I knew had to be eradicated; things just wouldn't grow for me as for our neighbors, try as hard as I might; the "wonder of growing things" meant only backache to me. However, I did successfully raise turkeys and chickens but I never did quite overcome my repugnance to handling them, to their inherent odors. I was constantly washing my hands—it's a wonder I have any hands left! But Clarence was a dear; he did the work of three ordinary men, never complained and, to this day, has never blamed anyone but himself for this fiasco, has always said a mature man should not have allowed himself to be persuaded to do something he knew nothing whatever about. And there is no doubt we

RENEWED FRIENDSHIPS

would eventually have made good, but at what a price! Too tired, too dulled by slavish work to take any other interest in life than that of making a mere living!

Still, it was not all drab and sordid: we had the finest neighbors ever, and how we did enjoy those Farm Bureau meetings! We tried so desperately hard to make up for lack of experience by treasuring all the "pearls of wisdom" that flowed from the County Agent's lips and we were so pathetically interested in the discussions. I never missed a meeting and Clarence missed only those when he had to "take the water." Oh, those all-night irrigatings, after a full day's work! How exhausted he would be, yet go to work the same morning with a smile! Our neighbors worked as hard as we did and they, too, were nearly always cheerful—miracles don't all belong to the dim past! But there is *one* thing that this farming experience has done for us, and that is, that the farmer has our unbounded sympathy, no matter what class of farming it may be. Fortunately, Clarence and I were never both discouraged at the same time; if one of us was unduly "down in the mouth," the other found some reason for optimism, and vice versa.

After one exceedingly warm and trying day at school, I found a telegram or rather a notice that there was a telegram in the town office for Clarence, in our mail box. Clarence was making concrete for lining the ditches—sweltering, sweating but smiling—when I brought him the notice; the milk separator, the stacked dishes, the turkeys, everything had to wait while I, with a prayer in my heart that the telegram would mean a way of escape from the farm, hurried in our second-hand Ford to town. Clarence had been enrolled in the Institute of Mining Engineers for a position ever since we had left Arizona but he had turned down several offers our first year on the farm because he wanted to "make good" as a farmer but two more years of a "strong back and a weak mind" proposition were time enough to remind us that there were other things we could do much better, with infinitely less effort and with immeasurably increased financial returns. We reasoned that we could accept a job, pay for the farm

HIGH SPOTS IN THE ANDES

with our savings and then live comfortably on the farm ever after; surely, with no encumbrances, one could live comfortably on a farm! But our farm is still a liability—yet we know there is money in that farm, for we have put a lot in it! And our ideas of comfort have changed.

The telegram, as ardently hoped, at least by me, was an offer to come to Bolivia at \$300.00 per month, expense money for the trip to be sent on acceptance. *Three hundred dollars!* Why, we hadn't accumulated that much cash in all those three back-breaking years. True, we were slowly, oh, so slowly, finding the load a little lighter—but *real cash*, i' faith, those \$300.00 seemed like three million to me. I accepted before signing for the telegram and I am sure I exceeded the speed limit in getting home. Clarence deliberately finished lining the ditches before coming to the house and then there were all the chores to do before the matter could be discussed, but there was no doubt in *my* mind—we were going to South America. First of all, who would take care of the ranch? There were twenty-five or thirty cows to dispose of, for we could not expect anyone taking care of the ranch to work as hard as we did. Then C. would have to precede me, for we knew nothing of the conditions 'way down there, even if there were a suitable place for a woman to live. But still more important, I must finish the remaining three months of school, for I had taught too long not to know what it meant to change teachers so near the end of the school year.

That night we decided C. would accept, asking for a month to arrange matters on the farm. We would ask C.'s father and mother to live on the ranch; we would sell the cows; my daddy would go to Colfax to live with a widowed daughter and I would come to South America as soon as a home was ready for me. What a busy month that was! How the time did fly! And what dreams did we not dream of our return to the farm after the three years' contract had expired! This letter is entirely too long already so in my early next, depending on the promptness of your reply, I'll write you about "Our Five Years in Bolivia" to be followed by

RENEWED FRIENDSHIPS

"Gold Mining in Peru"—a sort of serial. Sounds like breakfast food, doesn't it? Here's hoping my serial will give you enough "pep" to reply promptly, even though it is not "shot out of guns."

P.S. In rereading the paragraph about my not having a beau, I feel impelled to add, that it was not until I went as a "new teacher in a little town" that my romance budded; you and Miss P. were both new teachers in small towns when you met your fates and we both know many other cases to substantiate this fact, so I have come to the definite conclusion that,

*"The good Lord gives to every good woman,
Her own little house to keep—"*

if and when, in hunting "pastures new," she chooses a small town; there her chances for matrimony are increased a hundredfold. I am passing this advice along to my unmarried nieces and friends, not as a theory but a fact, and I always cite myself as a shining example!

How I would have enjoyed visiting with you last summer! Too bad I found out too late that you were in Toppenish. One of the greatest unalloyed pleasures in life is the renewal of a friendship that has lain dormant and I surely was appreciative of this pleasure when I saw Iva at Lewiston, the same unselfish, "fly away" Iva, who loves us all but almost never writes us; and Leah, whom I saw at Pullman, younger looking even than when I last saw her many years ago and even more charming; the many other friends of college days: "Sweet Marie," sweet as ever and just as dignified as when she was a freshman; "Lovely Rose," "Svelte Sue," "Gracious Gracie," "Dirty Dora, she eats mud" (really the most meticulous one of us all), "Messy Mattie," "Giddy Gladys" (now a staid matron, mother of two) and "oodles" of others. How it warmed the cockles of my heart to be recognized so unhesitatingly by Colfax folks, to be entertained by former pupils, whose children were now almost of high school age! And the host of Seattle friends! Clar-

HIGH SPOTS IN THE ANDES

ence liked every one of my friends and they all seemed to like him—a sort of mutual admiration affair, and now I hope when next we come to the “States,” we shall see you and Hal, personally renewing our friendship of so many years’ standing.

CHAPTER II

THE JOURNEY TO BOLIVIA

Santo Domingo Mine, July 7, 1931.

DEAR BYRDIE:

I was very much pleased and flattered as well to receive such a prompt reply to my "effusion" of "Renewed Friendships." Did I find the girls much changed? With but one exception, practically not at all; old Father Time has dealt gently with our "bunch"; may he continue to do so! Each of us married ones has "the nicest man in the whole world" while the few unmarried ones are absorbed and happy in their chosen professions.

Now, true to my promise, I'll begin to tell you about those five years in Bolivia, beginning with Clarence's departure, my preparations to go and some of the "high spots" of my thirty-four days' "Boliviaward" journey. The short month's time allotted to Clarence, already full, soon overflowed with visits from relatives, who came to wish him *bon voyage* and "good luck" on his outset to this far-off, vague and then almost mysterious land of Bolivia; to say "good-by" for three years—but those three years have multiplied themselves by three and each year has had its many pleasing (and otherwise) adventures, all interesting and a few exciting. Clarence was given a never-to-be-forgotten farewell party by our fellow associates of the Farm Bureau. I believe every man, woman and child of the Murdock District, and a few thrown in for good measure from Orland, were at the schoolhouse to bid him godspeed and this large gathering of our neighbors made us feel that the unceasing toil on the farm was more than compensated by the warm friendships we had made.

But March 28th, the day of his departure, was a difficult one for me. I could not trust myself to another good-by at the station. It was Monday, a school day, and Gladys,

HIGH SPOTS IN THE ANDES

my fellow-teacher, had most thoughtfully offered to teach both her pupils and mine but I thought the more fully occupied I could make myself, the less poignant would be my feeling of loss. And, never, never, will I forget the tact and sympathy of those precious little kiddies on that day. I was a perfect Niobe—I simply could not dam the tears, although I felt like *damning* them; it was a long, tearful day but I would not efface its memories, if I could.

Clarence's second letter from Bolivia told me to come as soon as I could get ready but he suggested that I come on a Grace boat from San Francisco, which would bring me directly down the west coast of South America to Antofagasta, where he would meet me. He included a long list of things to bring: table linen, bedding, dishes, kitchen utensils, wearing apparel for the tropics and for the high altitude, as our new home at Pulacayo was 13,600 feet above sea level and although almost exactly 1500 miles south of the equator, yet, due to the altitude, was nearly always cold. The light, summery clothes designated for the "tropics" (one invariably associates the tropics with excessive heat), were very much in demand, in fact, I did not have quite enough of them but I managed to "get by" and then I had no further use for them all the while I was in Bolivia. (After nearly nine years down here, I recommend that you bring practically nothing with you, aside from your personal things, if you come to S. A., for linen is cheaper and 'most everything can be duplicated here at a cost, if you include freight, consular fees, etc., less than at home and think of the freedom from bother!)

Clarence's letter also gave instructions about passport, vaccination certificate, doctor's certificate (required by the Huanchaca Company, that one's heart was able to stand the high altitude), a credential from the Chief of Police or other civic authority that I had not been in jail within the past two years and the visé required on the passport for every country I intended to visit.

School had closed for the summer vacation but I had not yet sold the cows; half the herd were pedigreed, registered and consequently expensive Jerseys. Finally, I sold the grade

THE JOURNEY TO BOLIVIA

cows "piecemeal" and the registered herd on time—plenty of time, for now, nearly nine years later, the cows are still unpaid for; verily, verily, we were not destined to be successful farmers!

The neighbors were unfailingly kind; Mrs. Morey took me to Chico in her car and helped me a lot in a full day's shopping; Mrs. Summers accompanied me to Willows, the County Seat, and was my witness in obtaining my passport, nor must I forget "Bug," who always looked after my transportation whenever our dilapidated car was out of commission.

And then, in the midst of my feverish preparations, came a letter from Clarence, dated at Antofagasta: he had been ill, had been "sent down the hill" to recuperate and did not know if he would be able to "stand the altitude." You can well imagine my anxiety and mental suffering—Clarence ill and *six thousand miles* away! True, the letter was a month old and he had added, "By the time you receive this, I shall very likely be back at the mine," but I lost all heart for further planning and could only anxiously await the next letter, which, fortunately, came ten days later with the blessed news that he was now all right and that he thought the altitude would have no further ill effects.

Remember that you often told me I was "born under a lucky star"? I certainly thought so when I received a wholly unexpected letter from Dora, an old college "stand-by," who, I believed, was still teaching in Spokane. She had married a San Franciscan, and asked me to visit them. I was "tickled pink," not only to hear from her again and at such an opportune time, but I had been rather dreading the time, alone, in San Francisco—the time necessary to have my passport viséd not only by the Bolivian Consul but by those of Peru and Chile as well, for, as a matter of course, I intended to disembark at every port, being the "born sightseer" that I am; and time for the inevitable "last minute" shopping. Dora met me at the ferry and was of invaluable assistance to me; she and that fine husband of hers made the stay in San Francisco a very pleasant one indeed. But I must not

HIGH SPOTS IN THE ANDES

forget to add that I was given a heart-warming farewell party also by our good neighbors of the farm.

"My" boat, a Grace freighter, had accommodations for sixteen passengers but only eight were booked; my stateroom, planned for four persons, was shared with Miss Mather, an Englishwoman, going to the nitrate pampas of Chile as governess for the children of an English family, with whom she had "governessed" before. She and I did all the usual deck stunts together, walked our mile (ten times around the deck) after each meal and we studied Spanish together; my college Spanish had about all evaporated but some of it "came back." Miss Mather was a traveling companion *par excellence*. Our boat was heavily laden with lumber, a great amount of flour and a huge quantity of dynamite; due to the dynamite, the boat was anchored twelve miles out from the dock, so my brother, who had come from Sacramento to wish me *bon voyage*, Dora, her husband, her two sisters and I had to go out to the boat on a lighter. My brother was quite concerned about the dynamite on board but I, I merely requested him not to tell daddy, for I was too eager to be on my way to care what the boat was transporting.

We arrived at Talara, Peru, exactly two weeks from the day we left San Francisco. I thought I knew the geography of the Western Hemisphere, but I never realized how much farther east South America lies from us; we had to set our watches ahead every day. Ah, those two unbroken, heavenly-restful weeks from San Francisco to Talara, I shall never forget them—perfect days on a calm sea, not a care in the world, congenial companionship and the glorious feeling of physical rest, for I can truthfully say that after the first week on the ship, I felt completely rested for the first time in three years.

I forget just what day we crossed the equator; a freighter and so few passengers, old Neptune did not think it worth his while to initiate such a handful. I made my second trip down to South America on the same boat that we went north on, so I received my certificate from Father Neptune without the ordeal of initiation but Clarence paid pretty

THE JOURNEY TO BOLIVIA

dearly for his; the ceremony of initiation is really lots of fun, even to the initiates, and in another letter sometime I'll try to describe it in detail.

The barren, desolate vista of Talara is not a reassuring first glimpse of South America but we were all eager to set foot on land and were impatient at the port doctor's delay and the arrival of the port officials, whose sanction is necessary before one may embark; even though ours had been a strictly passenger boat, we would have had to anchor about a mile offshore, for there are no good harbors and accessible docks, such as we have, on the west coast of South America. With the exception of a new dock, recently completed at Buena Ventura in Colombia, this is the procedure: small rowboats or motor boats come alongside the big boat for passengers and baggage; huge flatboats for freight. The accommodation ladder is securely fastened to the side of the boat and down this ladder we go, one by one, to the small platform at the water-end of the ladder and watch our chance to jump into the small boat, tossing on the waves. When the launch has its quota, we are rowed or motored to shore, and again we watch our chance to leap on the dock.

But at Mollendo, which is our port for Santo Domingo, the small boat stops—or tries to stop—at a concrete pier under the overhanging arm of a crane, which projects out over the surf. A chair is let down into the bobbing-up-and-down boat and if there is a woman in the party, she scrambles into the seat; men hang on the side and back rungs and even to the legs of the chair—the pier manager blows a whistle, up goes the chair; another whistle and the chair swings over the dock and there you are! I always breathe a sigh of relief when the landing is accomplished or we are safely aboard the ship, for of course the procedure is reversed when you leave the port. Sometimes the sea is so rough that it is impossible to disembark; we have known of passengers being transferred to freighters at Mollendo and having to wait on the freighter four days before it was deemed safe enough for a landing. And once I landed without the chair. I had gone out to the *Santa Barbara* to meet a friend and the sea being unusually calm we landed with but little difficulty, but a

HIGH SPOTS IN THE ANDES

man in our small boat, in trying to jump from the boat to the steps of the dock, was thrown into the surf, but fortunately he was promptly rescued.

Talara is an oil town; has an immense power plant and a "cannery" of its own for making the five-gallon oil cans; has excellent schools both for the "Gringo" child and the native (being teachers, Miss Mather and I visited the schools) and a handsome clubhouse, which is beautifully situated on a high promontory. The captain and all the passengers were invited to a dancing party at the club. We had a good time—the captain, such a good time, that on our return to the dock (the entire crowd came with us to the dock as it was an enchanting, moonlit night), he offered to bet the crowd that he could outswim anyone to the ship; there were no takers, then he bet he could outswim anyone, with Mrs. Woods on his back! Still no takers so my vigorous expostulations were unnecessary.

Paita, the port of "Panama" hats, which you may buy from \$10 on down to a dollar, depending on your ability to bargain and also the time left before the departure of the boat—Paita gave us our first characteristic South American smell. It smells like an open sewer, which it really is. Here, for the first time, I heard of burro, or should I say *burra's*, milk being commonly used for delicate babies and adult convalescents; but since coming to Santo Domingo, the Chilean wife of our Peruvian engineer told me the burra milk is considered almost a specific for anemia, that her older brother was such a frail child he was given this milk almost exclusively, and that now he is a strong, sturdy but excessively *obstinate* man!

Miss Mather and I took a side trip in a four-seated buckboard a few miles inland to the picturesque little village of Piura; like all South American towns, and cities, it has a main plaza with a church taking up all of one side and all the other blocks of buildings radiate from this central square. There were many beautiful flowers. This was November, spring down here, and I especially remember the profusion of bougainvillea and a perfect riot of roses. But there was also the largest aggregation of ragged, dirty children in a

THE JOURNEY TO BOLIVIA

given space that I ever saw, not excepting Egypt nor Jerusalem, and how they did swarm around us; but unlike the kiddies of the far east, they did not pester us for "baksheesh." At the dinner table that night, I asked the captain how in the world could the mothers distinguish their own children under the accumulated layers of grime, and he replied, "Oh, by the smell!"

I shall not bore you with details of all the little ports, and we stopped at 'most all of them, but Salaverry stands out as a "high spot." The sea was very rough as it almost always is at Salaverry; Miss Mather and I had leaped safely into the motor boat, we had been down in deep troughs and up on the crests of heavy swells but finally reached the dock, that is, approached the landing place, and I had just maneuvered the ticklish feat of planting my feet on the slippery steps of the dock, when, turning to watch her make the leap, I saw, to my horror, her and the two men, who had been trying to assist her, all three swept from the lurching deck of the motor boat into the turbulent sea.

The seconds seemed like hours but at last I saw her, supported by two longshoremen, who had dived into the sea at once to her rescue. I saw her, rising full length from the surf, not, however, as a nymph, but more like a drowned dachshund, and still clutching her handbag! Of course, we returned at once to our boat, put her to bed, covered her with blankets and gave her hot drinks. It was an extremely harrowing experience but she was a good sport, came to dinner that night and seemed none the worse for her unpremeditated immersion in the cruel sea but she called out in her sleep several times during the night, and she wrote me later that it was several months before she ceased having nightmares of drowning. We are more than willing to pass up the next little port, but, lo and behold! a notice appeared on the bulletin board that no passenger would be permitted to disembark until we reached Callao (the port of Lima) by "orders from headquarters"; to this day I think that order was fictitious but it worked.

We arrived in the offing—twelve miles, owing to the dynamite—of the wharf of Callao very early in the morning. The

HIGH SPOTS IN THE ANDES

captain called our attention to a very gayly decorated Grace boat, making its way from Valparaiso, Chile, to the docks at Callao; he told us there was a Cardinal on board, hence its gala attire; through binoculars we saw many scarlet-robed priests promenading the deck, apparently in a procession. Never before had the port officials seemed so slow in examining our passports nor the port doctor so deliberate but finally we were in the motor boat for the twelve miles to Callao, finally on the street car to Lima and in spite of our impatience we arrived in time to secure a most excellent vantage point from which to view the parade. It was a colorful affair.

*"Priests to the right of us,
Priests to the left of us,
And on to the Cathedral,
Rode the six hundred"—*

that is the Cardinal and 599 other notables rode in motor cars, while the lesser lights, a countless multitude, trudged on foot. There were priests in scarlet, in black, in white and in brown; bishops in purple, officials in conventional black; traffic officers in blue uniforms with silver buttons and white gloves; policemen, it seemed hundreds of them, smartly dressed in blue uniforms with red trimmings and gold buttons, each with a white belt and shoulder strap, supporting his weapon, and highly polished puttees. It was a magnificent sight, and weren't we lucky to arrive in Lima on that particular day?

I was even more interested in the immense crowd of such various-hued peoples: white, black, yellow and bronze, for Lima has many Negroes, Japanese, Chinese and Indians, with all gradations between. I saw the barefoot, poncho-clad Indian by the side of the up-to-date dressed business man; the laden burro next to a shining Packard automobile—truly, Lima on that day was not only the "City of the Kings" but also of contrasts. Miss Mather was dreadfully bothered by fleas but they didn't molest me at all. Following in the wake of the crowd, we entered the Cathedral but with such a vast

THE JOURNEY TO BOLIVIA

assemblage it was impossible to see much so we left by a side entrance as soon as we decorously could.

Miss Mather hailed a taxi and we drove to the Zoölogical Gardens, where we had an excellent luncheon with large, luscious strawberries for dessert. Miss Mather warned me not to eat the strawberries as typhoid is currently supposed to be lurking in any uncooked fruit or vegetable throughout South America but delicious, delectable strawberries in November were too much of a temptation for me so I "took a chance" and feasted on them with much gusto. The Museum is quite close and I wanted to visit it but she was tired of museums, preferring to "sight see" the penitentiary; but I have a horror of penitentiaries—visiting one once at Lincoln, Nebraska, was enough to do me for a lifetime—so we compromised by my promising to make my visit to the Museum brief while she strolled around in the gardens and then I would wait for her while she "did" the Federal Prison. About all I remember of the really splendid Museum at Lima were the ghastly, shrunken human heads, heads shrunken to the size of an ordinary orange with all the features perfect—hideous, gruesome trophies of the head-hunters of the Amazon. But Miss Mather was destined to be disappointed, for as she tried to pass a guard at the prison, she was curtly informed that no one could enter without a permit and as getting a permit entailed several days' red tape, she decided she "didn't want to see their old penitentiary anyway." We returned to the Cathedral, now empty, and were shown the remains of Pizarro by a caretaker. Later we were told that these bones are replaced occasionally.

Arica is a pretty little port with a well-kept park and a Children's Playground on the waterfront; the open market was dirty and "smelly." Four years later Clarence and I spent part of a vacation here, after General Pershing had been there trying to settle the Arica-Tacna Dispute, and we found the place quite transformed; the streets had been paved and were much cleaner than the streets of New York were on our last visit and the market had been housed in a very pleasing, sanitary building. Miss Mather had to have her passport viséd and I went with her to the British Con-

HIGH SPOTS IN THE ANDES

sulate; not to be outdone, we then visited the United States Consul, who was most cordial and gave us a large quantity of magazines and other reading matter, which was most gratefully received, as we had exhausted the ship's library.

We were scheduled to stop at Iquique but a few hours, but owing to a longshoremen's strike we were held up three days. Miss Mather disembarked at Iquique but instead of being met by her friends, was met by a messenger, who advised her that the children whom she was to teach had the measles and would she please remain in Iquique until further notice? Bad luck for the kiddies but mighty good luck for me, as she met me every morning at the dock and we spent the entire day of all the three days together. I think I could find my way around Iquique even now blindfolded. At that time it was a very busy port, shipping tons and tons of nitrate for fertilizer to practically all parts of the world, but in a recent letter from a friend of mine whose husband is Head of the Transportation Department of the Anglo-Chilean Nitrate Corporation, I infer the once active, bustling, humming little port is now "dead as a door nail." She wrote that hundreds of men had been "laid off," that the nitrate industry seemed about to flicker out, hopelessly "in the red." Miss Mather and I visited the American Institute, a Methodist Mission School. The Director was quite proud of the school and justly so and, after he had shown us all over the plant, he said, "Mrs. Woods, we are short of teachers, a chronic condition, and if you ever want to teach again, there will be a position for you here." And, while I never taught in Iquique, I remembered "that chronic condition" and later taught at the American Institute in La Paz and in Cochabamba.

It was while we were in Iquique that we had a "near-mutiny"—that very afternoon Miss Mather had repeated her oft-spoken surprise that "our" captain never swore, that all the captains she knew before, and she knew a great many, swore like troopers. Late that same afternoon I was sitting on the deck all alone, for with the exception of Mr. Ford, the western manager of Grace & Company, and his wife, who had embarked on our boat at Callao, I was the only passenger



Mollendo Landing



Potosí Hill from the Mint



Man carrying tin cup of bull's blood to sprinkle over doorpost and lintel of mine's mouth. At the mill other bulls are sacrificed and their blood sprinkled over each machine in the mill. Note the place where the heart was removed

THE JOURNEY TO BOLIVIA

left. It was warm and sultry; suddenly the intense silence was broken by the longest string or succession of strings of the most fulminating, violent and picturesque oaths I had ever heard or even read about. I heard the captain's voice detonate, 'And blankety, blank, blank, if I ever hear of any of you giving this blankety, blank, blank a thing to eat or to drink or even speak to the blankety, blank, blank, etc., I'll put you in chains, too.'" I fled below to Mrs. Ford's state-room, where later Mr. Ford told us that a sailor had struck the Second Officer, and the audacious offender had been put in chains and fastened to a post on the Captain's bridge; that no one was allowed to speak to him and that he was to have only bread and water until the boat arrived at Valparaiso, where he would be turned over to the proper authorities. The captain was his usual bland self at dinner that night but those invectives, those lurid blasts of vituperation, came too fluently to have come from an amateur, from one who could be so self-possessed less than an hour later; as for me, I was still too "shaky" and too frightened to ask anything about the poor wretch above and for the rest of the journey, I carefully kept away from that end of the boat.

Before I leave the ship, I must tell you about the myriads and myriads of "guano birds" which we saw from the time we approached Paita and all the way down to Callao—millions of them. Sometimes they flew so close, we could almost touch them, an apparently endless flight; at ports we never tired of watching them as they dived for fish and they never failed to get them. At Mollendo, vacationing, Clarence has timed a flight of these birds. For two full hours there was a steady stream of flying birds. Fishermen row their boats out to the birds and are thus assured of a good catch of fish. At Callao we anchored entirely too close to a guano ship and the horrible odor would have induced us to leave our boat as quickly as possible, even if the celebration in honor of the Cardinal had not made us eager to leave, and, fortunately, the guano boat with its evil-smelling cargo had departed before we returned. The export of guano is one of Peru's biggest sources of income.

Nor must I forget the gigantic tureen of jellyfish chowder

HIGH SPOTS IN THE ANDES

—is there such a thing?—at Pisco: the ocean as far as the eye could see was a gelatinous expanse of jellyfish plus sea water, with occasional seaweed as a “final touch” garnish. The request to please not use the bath at Pisco was decidedly superfluous and every time we have anchored there, there has been this same phenomenon. *Pisco* is also the name of a commonly used alcoholic drink in both Bolivia and Peru, which looks like gin but is made of grapes and is as strong as “white mule,” and ranks second, perhaps, to *chicha* in popularity. Whether the town derives its name from the beverage-manufacturing industry or the drink derives its name from the jellyfishy port, I have been unable to find out; anyone I have asked, just grins.

Finally, after thirty-four days, we arrived at Antofagasta just at dawn. I was on deck before the anchor was dropped and Clarence got to the ship *before* the port officials; the purser demurred about letting him on board but he didn’t even see the purser! The captain, Clarence and I had breakfast together and then we landed at Antofagasta on the calmest sea of the whole voyage—I had been teased all the way down that the sea would be so rough, we might have to wait, anchored twelve miles out, days and days before making a safe landing. Antofagasta was once a Bolivian port and to this day many Bolivians refuse to add Chile to the address; it was the cleanest and the freest of smells of any South American port that I visited. We were domiciled at the Huanchaca House, the rest home for the employees of the Huanchaca mine; it is a large beautiful residence with wide verandas overlooking the then busy harbor.

Since Clarence had been in Antofagasta already ten days awaiting my arrival, we left the following morning for Calama, where we remained the night “to break the altitude.” We ascended on the narrow-gauge railway somewhat slowly through barren country to the “pampas,” the *salitres* (nitrate fields); these nitrate pampas of Chile are the most desolate, the most barren of anything I have ever seen: not a bush, not even a cactus, not a blade of grass to relieve the monotonous waste. These nitrate fields also once belonged to Bolivia and the export of nitrates for fertilizer and also

THE JOURNEY TO BOLIVIA

for ammunition has been a rich source of income to Chile, but as I wrote you earlier the industry is now a "has been." The *oficinas*, dwelling places of the managers, who are, almost without exception, Englishmen, are like oases in the desert: here you will see a clump of pepper trees and a few hardy flowers but these tiny bits of greenness and gay colors are all but lost in the vast, dreary stretches. Many are the stories we have heard of the lavishness and munificence of the gay entertainments and the open-handed hospitality of these *oficinas*.

At Calama the train unloads its passengers for Chuquicamata, the camp of the largest single deposit of copper ore in the world, and passengers for Bolivia, who are afraid to risk the steady, steep climb into the rarefied atmosphere of the *altiplano*. Leaving Calama quite early the next morning, our train continues to ascend rather slowly but soon the desert waste gives place to more colorful scenes: snow-capped mountains are plainly seen in the distance and at every station groups of Indians in gay-colored ponchos, or that once were gay, and in trousers slit at least twelve inches above the ankles to show what once were white ruffles, and with such queer-looking hats! The women wore such voluminous skirts that, when spread out, I am positive each skirt would measure eight yards in circumference around the bottom—skirts of red, yellow, purple, blue, orange, and sometimes one could get a glimpse of all these colors on one woman; the skirts reach halfway from knee to ankle and, cold as it was, nearly every woman was barefooted. White varnished hats were perched precariously on their heads—how they ever keep them on is still a mystery to me, yet I have never seen a hat blown off. We passed immense fields of borax and saw Indians shoveling blocks of borax, reminding one of shoveling snow.

It is an all day's ride from Calama to Uyuni, the junction point for the Huanchaca mine as well as for all other destinations, as the narrow-gauge track changes here to the standard gauge. Uyuni is the windiest, bleakest spot on the map of the Western Hemisphere and, as it is nearly 13,000 feet above sea level, it is also very cold. There are no taxis in

HIGH SPOTS IN THE ANDES

Uyuni so we walked very, very slowly, to the Company's office, about three blocks. Clarence had had the lamentable experience of hurrying here, trying to keep pace with the *chico* carrying his baggage, the result of which was a trip to Antofagasta and a month's sojourn there to recuperate. An autocarril (an automobile adjusted to run on the railroad track) was waiting to take us to Pulacayo, where we arrived about 8:30 P. M. and were taken at once to the Administration House and were warmly welcomed by the Manager and his charming wife. And our eventful life in Bolivia began.

CHAPTER III

THE HUANCHACA MINE—PULACAYO—FIESTAS

Santo Domingo Mine, August 10, 1931.

DEAR BYRDIE-BYRD:

It was "extravagantly" sweet of you to answer by air mail and such promptness deserves an immediate reply: it was stupid of me to forget to tell you that the Huanchaca mine is silver, located at Pulacayo. The address, Cia. Huanchaca de Bolivia, Pulacayo, Bolivia, South America, is an envelope-ful; we are 1500 miles south of the equator, "up in the world" 13,600 feet, more than 2000 feet higher than Mt. Hood and 1600 feet higher than your beloved St. Helens. In December the weather is comfortably warm between sunrise and sunset; we are in a saucer-like depression and the sun seems unable to locate us before nine in the morning and then he abruptly takes his leave about four in the afternoon; his rays come down so almost vertically, that the temperature during the day varies almost not at all but with his departure there is a decided coolness and I am glad to don a light sweater, although the electric stoves in bathroom, living room and dining room are almost never turned off. It will be somewhat colder in June with little flurries of snow, yet, on the whole, the thermometer registers so little difference throughout the year, it is not worth "writing home about." But the extreme dryness of the air is not only very noticeable but nerve-racking and wrinkle-producing as well, so we women saw to it that open vessels of water were on all our stoves all the time.

This mine at that time—1923 to 1925—was recognized as the largest single-vein silver mine in the world; it had more than a hundred miles of underground tunnels; the deepest workings were 660 meters (2145 feet) below the adit level, the entrance of the mine, while the adit level was, and I

HIGH SPOTS IN THE ANDES

presume still is, 600 meters (1950 feet) below the top of the mountain. The Administration House is built over the mouth of the tunnel. Huanchaca had an estimated production of more than five hundred million ounces of silver—not so much today with silver worth but thirty cents, but at that time it was probably worth a dollar an ounce and five hundred million dollars is quite a tidy sum for any mine to produce. In those early days it averaged a metric ton of metallic silver a day: this silver was taken on llamas to Potosi, about eighty miles distant, and there coined into money with which the workmen were paid.

Just how old the mine is, no one seems to know; it was included in the famous "Potosi District" and it was very likely worked in Pizarro's time, about the middle of the sixteenth century. In our time there was a staff of nearly a hundred employees, mostly "Gringos," and 1500 workmen, about 1200 of the latter working underground—these were largely long-haired, barefooted Indians, who spoke only Quechua. The mine was very hot, due not only to its great depth but also to the subterranean, extremely hot waters which point to volcanic origin, for the volcanic mountains of San Pablo and San Pedro are quite close. These waters were charged with carbon dioxide gas, which settled in the most poorly ventilated parts of the mine, and unless the utmost precaution, with eternal vigilance that the safety precautions were carried out, was exercised the workmen were asphyxiated. It has always been considered a dangerous mine: once twenty-eight men in trying to escape up a ladder were all overcome by gas and dropped, one by one, down the shaft. The second day after Clarence arrived two men were killed, but he always minimized the hazards and dangers to me and it was not until we had left Pulacayo that I fully learned how alarmingly dangerous this mine is. However, with a new ventilation system and with the most meticulous precautions, the death toll was materially decreased. One wholly unwarranted tragedy was that of a "gas-perro" (gas-dog, a strictly local term) himself, whose sole duty was to be on the lookout for gas—he dropped a twenty-five cent tape line down a shaft and went down to

HUANCHACA MINE—PULACAYO—FIESTAS

recover it; Clarence was at once notified that he did not respond to signals and his body was brought up as promptly as possible but in spite of the fact that the mine had every known apparatus for resuscitation, all the efforts of the doctor were in vain.

Due to the excessive heat, the Indians wore breech-clouts only. In making his daily rounds in the mine, Clarence noticed a very large, well-proportioned Indian in one of the stopes and occasionally he would slap him on his huge, sweating shoulders, calling him "Firpo," which seemed to please the Indian very much; Firpo at this time was the idol of all South America and was confidently expected to knock out Dempsey. About a month or so after Clarence had been jocularly noticing "pseudo-Firpo," the Indian sent word by the timekeeper that he wanted to speak to the "Capitan" very confidentially; with the aid of a trusted interpreter, he told Clarence of a place where his family for generations had obtained gold whenever they needed it; its location was a secret handed down from father to eldest son and his father had taken him to the place when he was twelve years old. He continued, "I am not a miner but I know you are and that you will do the right thing by me, so if you care to see this place, I will take you to it." Clarence was touched by his trustfulness but told him it was impossible for him to leave the mine then, that he could, however, send another man and the Indian replied that whomever C. delegated to go in his stead would be treated as if he were Clarence himself.

Accordingly, a few days later a young California engineer, who needed a vacation, went to a certain designated village, three days distant by mule, where he saw the pseudo-Firpo, but by previous arrangement he was not to be recognized; some morning the Indian would leave the village and a few hours later the engineer was to follow. This the Californian did for two full days on muleback, then the two traveled together two days on foot and it was during these last two days as they passed through hamlets or were met by Indians, that the latter, who had never before seen a white man, knelt at the engineer's feet, kissed his hands and asked for his bless-

HIGH SPOTS IN THE ANDES

ing! The natives evidently took him to be a god and this experience may have been the reason why he wrote his folks at home, "I am now so close to heaven that I can shake hands with Jesus." (This letter was published in the local weekly of his "little home town" and as we had once lived in this same little town, he passed the papers on to us to read.) Sacrilegious? I am sure he did not mean it that way but you must admit it is a graphic way of depicting the high "curve" upon which we were living.

On the morning of the third day of foot travel, "Firpo" showed the engineer the place; sure enough, there was plenty of signs of old workings. The Indian removed a few rocks and exposed the gold, which existed as narrow ribbons of metallic gold in slate rock. There was a considerable area of mineralized rock exposed but the rich stringers were so far apart and the locality so extremely isolated that the engineer deemed it inadvisable to do anything with it. The point is, however, that this Indian had told the truth, that undoubtedly his forefathers had taken out many thousands of dollars' worth of gold and, as far as he knew, many millions still existed. (It was through such stories that we became interested in Santo Domingo and now, here, Indians frequently bring in specimens of gold ore and some day we shall find *another* Santo Domingo; does this make your feet itch to come down here, too? I hope so.)

The silver ore at Huanchaca was brought out of the mine in electrically driven cars, dumped at the *cancha* where women, 150 to 175, sorted the lead, the zinc and the silver ore in their respective piles. Here it was necessary to guard against ore stealing: appropriating silver ore is called ore stealing but "sneaking" gold ore is called "high-grading."

Pulacayo, while wholly dependent upon the Huanchaca mine for its very existence, was, however, "municipally" independent in that it had its own police force (the Company paid all the policemen's salaries) and its own public schools (the teachers were all paid by the Company and the buildings were owned, furnished and maintained by the Company); it had about 7500 inhabitants, many of whom had never been farther away from home than Uyuni (I have for-

HUANCHACA MINE—PULACAYO—FIESTAS

gotten but I think Uyuni is about thirty kilometers—eighteen miles—from Pulacayo) and some Pulacayans had never even been to Uyuni. They and their forbears were born in Pulacayo, the men worked in the mine, most of the women in the *cancha*, and eventually they died there. When the mine was closed down temporarily some time after we left and these poor people, who knew no other spot in the wide, wide world, had to seek homes elsewhere, I almost wept when I heard about the expulsion, reminding me of *Evangeline* and *Hermann und Dorothea*, but the less romantic side to this forcible ejection was the intention of the new management to get rid of malcontents and agitators.

The Administration House was a big, barnlike structure, built over the entrance of the mine; all of the lower floor was given over to administrative offices, telephone exchange, telegraph office, the printing press, etc. The second floor belonged exclusively to the Manager; he and his wife had remodeled a suite of rooms and added a sun porch on the north side, thus making their immediate quarters quite comfortable. The building was constructed on a steep hillside, so the servants' quarters were on a level with the upper floor and yet were on the ground floor; the servants had the cheeriest and best situation for it received all the sunshine, both morning and afternoon. We were entertained at the Administration House a whole month while our house, the Mine Superintendent's domicile, was being calcimined, repapered, painted, etc. Clarence, the Mill Superintendent, and the Head Accountant had been keeping "bachelors' ménage" in this house about four months before my arrival—"nuff said."

I still remember how Clarence and I with heavy wraps on and a blanket over our knees huddled in front of the small electric stove to keep our teeth from chattering, for one small electric stove made but little impression on those two very spacious and high-ceilinged rooms that were assigned to us in the Administration House. Our two rooms were communicating but to go to the dining room, the *sala* (drawing room), the library, billiard room or to the Manager's rooms, anywhere in fact in that big, barny building,

HIGH SPOTS IN THE ANDES

one had to first enter a very wide, glassed-in corridor, which gave access to all parts, and it was well to don a warm wrap before sallying forth to dining room or elsewhere after sunset, for the evenings are cold the year round in Pulacayo. The entire floor was sumptuously furnished but rather for elegance than comfort; our rooms had four immense French windows opening out on the street veranda, but not a glimmer of sunlight filtered through. From this veranda we had an excellent view of "Main Street" and the plaza, while the imposing (for a mining camp) and ornate church was directly opposite our sitting room; the latter had its disadvantages, chief of which was the almost daily funeral, and I have counted four coffins in a row for one burial service. The weeping and wailing, the mournful dirges, were too distressing for me, so I usually absented myself before five and did not return until six or after, when "the coast was clear" of coffins, mourners and "hangers on." The many deaths were not due so much to accidents in the mine as to the appalling infant mortality.

The priest was a corpulent, well-educated, well-liked, full-blooded Quechua Indian. Once his mother came from a distant village to visit him. The Manager's wife invited the priest and his mother to dinner; the mother ate the meat from the chicken bones and then deftly threw the bones over her shoulder on to the highly polished floor; please page Emily Post—should we other guests have likewise thrown our chicken bones on the floor?

My first night in Pulacayo, I awoke shortly before midnight with the worst headache I had ever experienced, an agonizing pain at the base of my head; I had "soroche" (Spanish) or "puna" (Quechua) for altitude sickness and I just had to bear it—I assure you I did not grin—for there seems to be no quick remedy for the ailment, but by noon the following day I was quite all right and when Clarence came home at four in the afternoon to tell me that we were invited to a party that night, the thirteenth wedding anniversary of the Gareys, I was "rarin' to go."

It was my "début" in Pulacayo society and no "débutante," before or since, ever had a better time. All the *empleados*

HUANCHACA MINE—PULACAYO—FIESTAS

(employees), both "Gringo" and Bolivian, were there and there were enough Gringos present so that my lack of Spanish was not embarrassing. It was a charming, lively party, wet but not obviously so; a full-blooded Quechua Indian served the refreshments (for the life of me I cannot remember what we had to eat). The Indian wore trousers of *bayeta*, a home-spun and home-woven material of sheep or llama wool; they were skin tight except where they were slit halfway to the knee in the back, displaying white, pleated, presumably, "undies." He wore a short jacket of *bayeta*, a white shirt or rather blouse and the most "stunning" belt I ever saw, at least four inches wide, and I thought it was elaborately embroidered; but in the market later, I learned that the llamas, dogs, people and flowers in red, orange, purple, blue, yellow, black and white are knitted in—the whole belt is tightly knitted and nearly every Indian wears one of these handsome belts. This Indian was barefooted and I, a "tenderfoot," thought he was there just for effect and it was not until the following day that I found out that he was just an ordinary servant. The waiter at the Administration, although an Indian, wore "white man's" clothes and at dinner wore a full dress suit.

The mine doctor's wife, a young bride, Bolivian with a German grandfather, an ex-teacher in the La Paz schools, was as eager to learn English as I Spanish, so we then and there, at this party, arranged to study together and I went to her home the next morning at ten. Every morning we studied Spanish from ten to eleven and English from eleven to twelve. And we did this for a full month without a single interruption—now, wasn't that a typical way for me, an ex-teacher, to begin my life in Bolivia?

I didn't *have to* but I invariably did go through the plaza on my way to the doctor's home. This plaza in Pulacayo was a never-ending source of entertainment to me; here I aired my Spanish the most frequently and many a laugh did the Cholas and I have over some of my funny mistakes—these South American peoples, wherever you may meet them, are too innately polite to ever laugh *at* you but they love to laugh *with* you. Here is a really true story, but, "honor

HIGH SPOTS IN THE ANDES

bright," I am not the "Gringa": A recently arrived Gringa bought a half dozen pullets in the market and after they were delivered, decided she would buy a rooster and raise her own chickens; she knew *gallina* was hen but by the time she got to the market, she had forgotten the word for rooster, which she had just looked up in the dictionary. The same Chola picked out a nice *gallina* for her but the Gringa said, "No, no, *un hombre-gallina*" (No, no, a man-hen!) and she got her rooster without even a smile from the Chola.

How soon did I master the Spanish? Ah, my dear, I have far from mastered it yet but I plunged right into speaking at once and shortly after we were settled in our new home, I said to Clarence one noon, "I have misplaced my scissors and can't *meet* them anywhere" (the word *encontrar*—to meet or to encounter—is used for "to find"), and Clarence replied, "I'll help you *meet* them," and it was some minutes later before he grinningly called my attention to our "broken" English. But this showed that we had begun to *think* in Spanish anyway.

The "Chola" is a woman with some foreign blood, be it ever so little; although ninety percent Indian, she is no longer Indian but a Chola. Here in the plaza, which was also the market place, the Chola sits on the ground, usually a sheepskin under her, and her many, many voluminous skirts become useful as well as picturesque; whatever she has to sell is spread out in front of her; generally a certain Chola sells only eggs, another onions and still another only slices of pumpkin, etc. But the two coca-venders were, however, the busiest and most prosperous—every morning and night as the shifts went to work, every man stopped to buy a handful of coca. He will not go to work without his coca and many a man has a lump of coca the size of a turkey egg in his cheek, it seems forever, because every time I saw these men, they had the same "swelling" (looks like mumps) on one side of the face. Coca resembles the senna leaf somewhat and the tea has an insipid taste; coca tea is recommended for *soroche*. Men, women and children use it; I have seen a six-year-old boy with a "hen-egg lump" in his cheek but usually the children are not addicts until they

HUANCHACA MINE—PULACAYO—FIESTAS

reach the age of fourteen or sixteen. Coca has a slightly narcotic effect (it is the source of cocaine) but when chewed with an alkaline substance, "*leja*," it is called down here, or with plain wood ashes, it deadens the pangs of hunger and as a result almost all the chewers of coca are undernourished; many a miner goes to his shift of work with but a hunk of bread and a handful of coca.

The meat-vender is next in popularity, for all South Americans are great meat eaters. Very good beef on the hoof was shipped in from Argentina and this beef, as well as mutton and very occasionally pork, was sold by a Cholo, a favored "concessionaire"; meat is very cheap here and we bought the choicest *lomita* (tenderloin steak) for the same price as soup meat—I am not sure but I think we paid only thirty *centavos* a pound, at that time, about ten cents U. S. currency. Yum, yum, I can still smell those savory stews that two or three Cholas concocted on that plaza; they sold this appetizing "goulash" in tin plates and why bother about washing a plate? I know these plates were never washed during busy hours, but were piled up with the savory mixture for the next comer as fast as they were emptied by the previous one, and during slack hours, why work, if you didn't have to?

In one corner of the plaza was the *recova*, a large warehouse-like structure where the Indians brought their vegetables, fruits, eggs and what not, often from very long distances, on llamas and not infrequently on their backs. Sometimes we Gringos were permitted to buy directly from the "wholesalers," for the *Bienestar* (welfare)-man allots to each Chola the amount she may have to retail at her "sitting" in the plaza but we could not buy cheaper at the *recova*—it was a "change" however, to buy directly from the Indians and in this way we picked up a little Quechua. Whenever I saw a train of llamas or burros winding its way down the steep mountain side, I grabbed my camera and hurried to the plaza: the unloading of the llamas or burros, the brisk selling at the *recova*, the skurrying back and forth of the high-hatted, billowing-skirted Cholas, carrying their wares in the *llijillas* on their backs and followed by a seemingly

HIGH SPOTS IN THE ANDES

endless rabble of *niños* (children), heterogeneously garbed, mostly ragged and dirty, but as picturesque as their mothers—this was a “moving picture” that never palled, apparently the same each time yet always different. And I can still see those gnarled, stunted, apologetic tomatoes, brought many a weary mile on a burro’s, a llama’s or even an Indian’s back, each tomato carefully wrapped in a leaf, all of them in a hand-woven basket of reeds or grass—what a contrast from the huge, smooth, evenly ripened “beefsteak” tomatoes I had grown on our ranch! Then one Sunday I saw a tiny Indian boy making his way carefully through a particularly large crowd, gently pulling at something, I knew not what, and even the boy himself was completely lost to sight at times, obliterated by one of those balloon-like skirts of a Chola, and when he finally emerged, he was tenderly towing, not yanking, a fairly good-sized, live bronze turkey! I saw again in retrospect the hundreds of turkeys I had so heedfully fed and solicitously bedded and here was a lone turkey, probably the boy’s one precious possession, and it must have been brought many, many miles to this market, for I *know* finicky turkeys cannot be raised at such a high and cold altitude. One is expected to bargain for everything one buys down here but did I haggle over the price of this turkey? I’ll say I did not—I even gave him a *yapa*, a small gratuity—to his first asking price and I would not be surprised if the boy had not recovered from his astonishment yet. We had canned butter, canned milk and more often canned tomatoes than fresh ones but did these make me long for a return to ranch life? I’ll give you just one guess for the answer: even the toothsome, luscious California tomato had no pull, while, to this day, merely the picture of a milk separator in magazine or catalogue gives me a queerish feeling at the pit of my stomach.

At the side directly opposite from the *recova* were several *casuchas* where *chicha* is sold; a red flag at the entrance signifies *hay chicha* while a white flag says it is all gone. Flags are used this way in cities not only for *chicha* but for *picante* (a highly seasoned, decidedly hot food) and other specialties as well. *Chicha* is an alcoholic drink of peanuts or corn,

HUANCHACA MINE—PULACAYO—FIESTAS

masticated by the oldest (because they can do nothing else), hence usually toothless, women, then expectorated into an *olla* (pot), allowed to ferment, drawn off and is then ready for use. I have seen the whole process with my own two eyes and "they say" *chicha* is also made by presses in an entirely sanitary way, but whenever I attempted to drink any of it, I could always see those toothless hags and my glass was set down untasted.

I soon learned to distinguish the "raw," long-haired Indian from the one who was an old-timer in the mine, to even recognize the locality from whence he came by the kind of hat he wore; I could even estimate, fairly accurately, the wealth of the Chola from the amount of jewelry she wore (and the Chola wears no spurious jewelry), calculated with her number of *polleras* (skirts). I presume no Chola wears less than three *polleras* and I was told by a neighbor, whose veracity is above reproach, that one Chola counted fourteen of them on herself to satisfy my friend's curiosity. The *pollera* is made of a thick, fuzzy, woolen material, called *castilla* (it makes an excellent "silence cloth" for the dining table); the *castilla* is pleated in wide pleats on a yoke, as many pleats as is possible, thus making the skirt very full; the length is about halfway from ankle to knee and "they say" the skirts are never taken off—the newest one is put on top and eventually the oldest one drops off—but I am sure there must be exceptions, for several times what I mistakenly took to be a circular, bright flower bed turned out to be a Chola skirt drying in the sun.

The Chola, nor the Indian woman, knows not bloomers nor "panties." The "high-class" Chola costume is beautiful and very expensive: besides the many, voluminous skirts (the *castilla* costs a dollar a yard up to as much as three, and each skirt requires at least eight yards; the "ultra first class" Chola disdains even *castilla* and has heavy silk or velvet, which means many more yards) she has a basque, costing from \$10 to \$25, a pair of very high-topped boots with excessively high heels, a stiff, painted white Panama hat and a most gorgeous, beautifully embroidered, heavy silk

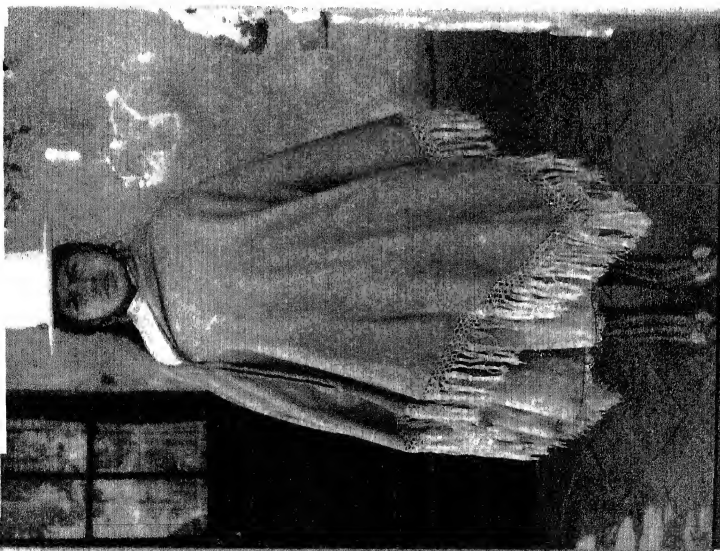
HIGH SPOTS IN THE ANDES

shawl. If she should change her garb as often as we do, it would take a millionaire to keep her in skirts alone.

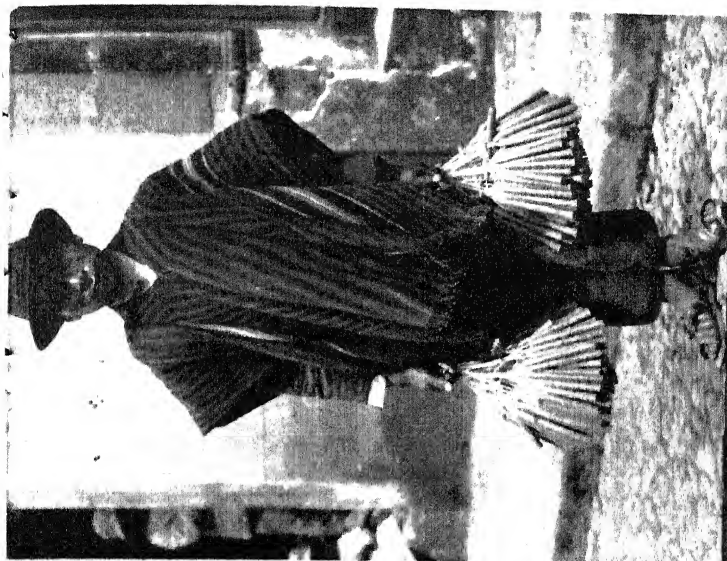
The babies—and there are so many of them—have their legs tightly swathed together and are thus bandaged up to their armpits. I often wonder how the little things can grow. Even the doctor's wife bandaged her baby like this and when I merely hinted at this, she promptly called my attention to the fact that there are no bowlegged children in South America. The babies of Cholas and Indians are invariably carried in a shawl, called a *llijilla*, on the mother's back; these mothers seem to love their babies very much until they are able to toddle and then, with a younger one to look after, the older ones apparently look out for themselves. Most of the little girls are dressed in exact replica of their mothers, enormously full skirts, tight basque and all! The little boys are more nondescript, oftentimes literally a bundle of rags.

All the women and girls wear their straight black hair in two braids down the back (I knew only one Chola who bobbed her hair but she had worked for Americans so long that she was quite Americanized—the belief is general among them that if the hair is cut off, it is because of a “bad disease”); it is an unusual sight to see a Chola well combed—they have queer, little, homemade wooden combs, and believe this or not, but I saw two Cholas combing each other's heads and with evident relish picking the lice off these wooden combs and *eating* them! It is a common sight to see a mother delousing her offspring by hand and I have been repeatedly told that the “hand picked” lice are always eaten either by the mother or, if the child is “real good,” it may get them!

Every Indian, man, woman or child, always has a load on his back. It is a badge of servitude, handed down from the Incas; the nobility only carried no burden. Even to this day, the toddling Indian child has its diminutive cargo, perhaps a few little sticks, and this load is increased as the child grows, hence he is literally trained to be a “beast of burden”; a man will carry more than a hundred pounds on a paved or good road (eighty pounds is an average load) and in the



High Class Chola, La Paz



Indian Boy Selling Candles in La Paz



Chuncu Indian Boys, La Merced

HUANCHACA MINE—PULACAYO—FIESTAS

mountainous, rough trails, he will uncomplainingly carry fifty pounds all day long.

Although we were very well looked after in the Administration House, yet we were happy to be in our own home. The nine o'clock, or even as late as ten o'clock dinner, did not "set well" with "small town" folks as we were; besides, the "head of the house" went to work very early and with such a late dinner, we felt we had no evenings at all. Our house was lovely, quite a pretentious seven-room, adobe house, plastered inside and out, with many, many windows and a delightful sun porch, which received every ray of sunshine that old Sol sent out, for it projected in such a manner that it received the sun from all three directions, east, north and west. Here among the flowers, mostly hardy ones such as geraniums and nasturtiums, but I did have some wonderful carnations, and surrounded by cages of canaries, I spent most of the day when at home. The many canaries were for detecting gas in the mine and I am glad to say that not one of these enchanting song birds lost its life during our entire stay in Pulacayo.

Marcelina, a pretty seventeen-year-old Chola, so fair she could easily pass for a Gringa, was my first and only servant in Pulacayo. She spoke almost no Spanish but she had had three months' excellent training by my next-door neighbor, who, seeing her possibilities, had suggested to Clarence that she keep Marcelina until I arrived. I bought a Spanish primer and later other books for her, giving her a lesson in Spanish every day (if she had all her allotted work done at four, she was entitled to a lesson and not one single time did she fail to ask for her lesson!). I, perhaps, learned more Spanish than my pupil but in an incredibly short time she was able to read recipes in my Spanish cook book. Within a month she was doing all my housework just as I wanted it done; she was a jewel and every Gringa in camp kindly envied our having this capable servant. I had but one serious "show down" with her and that was in teaching her how to use the kitchen range. Nearly all these people down here have the idea there can be no heat without visible smoke, hence she would have the wood sticking out a foot

HIGH SPOTS IN THE ANDES

or so from the firebox and the kitchen had just been done over, all in white. I explained to her that with the firebox firmly closed there was more heat, all the smoke escaping through the pipe as it should; the second time I told her I didn't want my newly painted, enameled and calcimined kitchen all smoked up; but the third and last time, I made her understand most unmistakably that if she didn't keep that firebox shut, she couldn't work for me, and we had no more disagreements. The idea is prevalent down here, that any artificial heat is injurious to the health, that the sun only is beneficial; some of the most pretentious homes in Antofagasta, in La Paz, in Arequipa or Lima have no heating arrangements whatsoever; if you are cold, put on more clothes, pile on the ponchos, even blankets, but a stove, except for cooking, never! Marcelina dusted meticulously but she would put the books upside down, likewise the sheet music on the piano, which I almost invariably reversed after she had gone to the kitchen. If anything went wrong with our electric stoves or telephone, I never had to send for the electrician a second time, another reason for good-natured envy among my neighbors, and shortly after we left Pulacayo this native electrician and Marcelina were given a real church wedding, with the Manager's wife as matron-of-honor. Marcelina went to the Administration as chief cook the day following our departure.

Now, you ask me to tell you about the fiestas. I have rambled about the plaza a lot and if, by any chance, I have forgotten anything, please don't hesitate to "speak up."

Pulacayo was "dripping wet" and alcohol plus fiestas equals quarrels, brawls and "confusion worse confounded." The pure Indian is rarely quarrelsome, the Cholo is extremely pugnacious but the Chola is the worst of all. My second or third night in Pulacayo, I was awakened by a woman's terrifying scream and I called to Clarence to go to her rescue but he merely answered, "Oh, it is just a Chola fracas," and was asleep again, almost before he had finished the sentence, but I lay awake a long time, imagining all sorts of dreadful things. At the table next day, I was unmercifully chaffed by all the old timers for wanting my husband to

HUANCHACA MINE—PULACAYO—FIESTAS

interfere in a Chola fight: within a few weeks, I, too, became callous to their screams and shrieks. And if we had disturbances like that on ordinary days, or rather nights, you may well imagine the uproar during fiestas.

Fiestas are the bane of the Manager's life: there are religious fiestas, civic fiestas and if there should be a week without one, a private fiesta is staged. Since having a "‘supernormal’ jag on" seems to be the aim and purpose of every fiesta, it is really remarkable that any work is accomplished at all. Each fiesta is supposed to have its *raison d'être* and has its characteristic customs; the outstanding ones as "Carnaval" and "Todos Santos," the veriest neophyte can grasp the reason for, but many of them dedicated to lesser saints, in which the Indians, sometimes in large groups, wear fantastic costumes, such as a bear, a boar or representing some hideous "there ain't no sech animal" and nearly always "His Satanic Majesty" with horns and tail, but each participant symbolizing a definite part of the whole; these latter require a lifetime of asking why and wherefor to find out what it is all about, so I'll merely give you my impressions.

Carnaval, corresponding to our Mardi Gras as celebrated in New Orleans, is, as you know, one big "blow out" before Lent begins. It is *the fiesta* throughout South America, the biggest one of all. In Pulacayo, the festivities began with Compadre's Day (Godfather's Day), the only day in the year when liquor, either inside or outside of man, is allowed in the mine; the workmen, festooned with serpentine and covered with confetti, come out of the mine on flat cars, so much "the worse for liquor" that the majority of them cannot get off the cars without help; they are too far gone to "whoop 'er up" any more and, with but few exceptions, they go quietly home to sleep it off.

This is followed by Comadre's (Godmother's) Day, which, to the Gringos at least, is the most colorful and most exciting of all the holidays. I told you about the one hundred and fifty to two hundred women who sorted ore, but I did not add that they were considered better workers than the men but received smaller pay; that almost every one had a baby each year with usually a different father for each baby;

HIGH SPOTS IN THE ANDES

the Company maintained a nursery at the *cancha* where these women worked; a nurse with other helpers looked after the babies while the mothers sorted ore. The father takes no responsibility whatsoever for the support or care of the child; the boy babies become miners, the girls, ore sorters and thus the cycle of workers is perpetuated.

These "*cancha* women," as they are called, begin months ahead to plan for this day: they elect a chairman, appoint committees, send for artificial flowers, serpentine, confetti, plenty of liquid refreshments including beer, whisky, *crème de menthe*, *chicha*, and *leche de tigre* (tiger's milk), appropriately named for it is alcohol and hot milk, a concoction which "they say" has "white mule" backed off the map. The Company furnishes the printed programs and the prizes for the lottery; the prizes consist of basques, hats, *polleras* (the Chola skirt and a much coveted prize), and handsome shawls or *mantas*, the most coveted prize of all. The prizes are numbered and duplicate numbers put in a box while the names of the women were put in another box; a "Gringita," usually an American child, draws the numbers and another "Gringita" the names; the woman gets the prize corresponding to her number; whenever a *pollera* or *manta* is drawn, there is much applause and a round of drinks.

A committee of three women came to our home about ten in the morning of Comadre's Day to escort Clarence and me to the elaborately decorated *cancha*, where a gay wreath of artificial flowers was placed on his head and a corsage bouquet pinned on my coat. We, with the Manager and his wife, other Heads of Departments and their wives, were given "grandstand" seats to witness the big drawing. Even before the drawing commenced, we were raising our glasses to our lips at every "*Salud*" (Prosit!) and surreptitiously emptying the glasses back of us—otherwise I would not be here writing you all about it. After the drawing, there was plenty of speech-making, interspersed with gay music and the "rounds of drinks" continuous; then Clarence was appropriated by one of the women "bosses," the doctor gallantly offered me his arm and thus pairing off, we revelers, accompanied by three or four bands and followed by the whole

HUANCHACA MINE—PULACAYO—FIESTAS

camp, marched and countermarched through the streets, stopping often for the paraders to dance the *cueca*, a charming native dance in which the waving of handkerchiefs, much bowing and pirouetting play a prominent part. After what to us seemed hours and hours of parading and intermittent dancing, the *cancha* women and their guests (this is strictly "Mothers' Day") climbed the Administration steps to the dining room, the overflow in the immensely long hall and on the steps, where all were served with a *copa de champañã*, and it was during the "champagne-respite" that we Gringos made our escape to our homes for a much-needed rest. But not so with the natives, they "whooped 'er up" until five. At seven, the same committee came for us again and, "willy-nilly," we had to go with them to the schoolhouse, where dancing continued all night. The Gringos were very popular with the *cancha* women, who danced with us even more than with our husbands, mostly the *cueca*, but quite often all we dancers joined hands, circled to the right, then to the left, and sometimes we just "jiggled" up and down; it was really lots of fun but there was too much "strong drink" and it was kept up too long; Clarence and I attempted to leave several times but each time were resolutely turned back by an intrepid committee, who were determined the Gringos should have a good time! About two in the morning, with a plea of illness, Clarence was allowed to take me home.

I think I can truthfully say that this Comadre's Day was one of the most strenuous merrymaking days of my whole life. The next morning the camp, or rather town, was completely "dead to the world"; the plaza was deserted and not a soul was stirring. But by noon little cliques began to gather and at two the parades with banners and much music again started, but luckily we were expected to be only spectators from now on; as participants our little part had been played. The dancing, parading, throwing of confetti, of water and of flour—this hubbub continued intermittently and decreasingly in the number of revelers and in noise until the first Sunday in Lent. (Marcelina from the very first day she entered service with us had carefully pricked a hole in

HIGH SPOTS IN THE ANDES

both ends of every egg she used and blew the contents out. She couldn't stand to see me break an egg and I never understood until Carnaval—the eggshells are carefully treasured for throwing water.) The Mardi Gras in New Orleans is but a patch compared to this carnival and Ash Wednesday is supposed to end all merriment but not here; it takes a few days to get warmed up to the *real* carnival and a few more days to taper off after the celebration is officially finished. The Huanchaca Company expected no work for two weeks.

Todos Santos (All Saints), our Halloween of childish pranks, is a two-day commemoration, November 1st, the Day of the Living, and the following day, the Day of the Dead. The first is a wild, wild "play day" but on the morning of the second, there is a decorous procession to the cemetery, almost every man, woman and child bearing candles and "breads," which are placed on the graves by the relatives; numerous "prayer boys" are in attendance, who receive a small stipend for repeating prayers at designated graves (and I think they "swipe" the food and drink afterwards). The priest reaps a big harvest but following these religious rites, the celebration deteriorates into a drunken orgy, almost as bad as, if not worse than, the worst features of Carnaval.

Other noteworthy fiestas are Independence Day, August 6th in Bolivia and July 26th in Peru, celebrated at least three days, with parades, speeches, firecrackers 'n' everything; then the observance of the Patron Saint's Day of the mine, varying, of course, with each mine. In Chojñacota this fiesta, while not lasting as long as Carnaval, as a gorgeous spectacle far surpassed the latter: the miners and millmen and mechanics, in different groups, were garbed in rented costumes of the most fantastic designs and most gorgeous hues; each group had its own band, each band taking turns at accompanying the singing and dancing and again all the bands playing in unison; the whole brilliant pageant presumably enacted some allegory, which no one seemed able to explain to us and which we were too "dumb" to get.

The Intendente, an officer of the law comparable to our sheriff, came over early in the morning of our first "Patron

HUANCHACA MINE—PULACAYO—FIESTAS

Saint Day" in Chojiñacota from Monte Blanco, which was in the same province with us, to keep the peace at the festival. Borrowing one of our mules, he rode the mile or so to the little chapel where the pageant was staged, promising to return the mule at once, for we were entertaining visitors and needed all our mules to transport the women, at least, of the party. Tired of waiting for the one mule, we started out without it and did not meet mule nor Intendente neither on the way nor at the fiesta. The Intendente had imbibed too freely, ran amuck, fired his gun indiscriminately into the crowd, killed one man and severely wounded a woman, but this did not stop the fun; in fact, we did not hear about the fracas until the next day! And except for a temporary suspension, the Intendente was not even punished! The same day, a laborer, returning from the fiesta, too far gone "in his cups" to make the steep grade to his home, lay down in the road to rest, went to sleep and the hot sun, beating down upon his uncovered head, made him "lôco" and he died a few days later.

Death almost always stalks these fiestas; at Pulacayo, especially during Carnaval, one or two deaths up to six or eight were so common as to scarcely cause comment; at our first Carnaval in Chojiñacota (I forgot to mention that Clarence had charge of a tin mine here), one man died from alcoholism and another from wounds inflicted by his "woman" throwing a beer bottle at his head—and hitting him. It had long been the custom for the Company to furnish *pisco* (the gin-like drink made from grapes) one year and four bulls the next year; we happened to hit the *pisco* year and Clarence vowed, "Never again" as long as he was in charge, so our remaining two years were bull years. These bulls were sacrificed at the portal of the mine, the warm blood sprinkled over the entrance and the still-quivering heart placed on the altar of the little chapel inside; this was supposed to prevent any fatal accidents for the coming year; the bulls gave a pagan touch to this supposed-to-be religious festival. We heard that formerly the heart was cut out of the living bull but that was not true in our time, for Clarence saw to it that the bulls were promptly killed before the heart was extracted.

HIGH SPOTS IN THE ANDES

The meat was later distributed among the workmen but I do not think it was barbecued.

St. John's Day, celebrated the night of the 23rd of June, when huge bonfires are lighted in many, many places on the mountain sides, is said to be to warm up St. John, for the 24th of June is the coldest day of the winter. (The bonfires are also supposed to bring the sun back, for this is the time of the winter solstice.) The almost continuous circle of high leaping flames is a beautiful, unforgettable sight.

La Paz has a fiesta, peculiarly her own, called "Alacitas," meaning in Aymara, "Buy of me." It begins January 24th and lasts three days. The "king" of this fiesta is a man doll, called El Ekeko, who, according to very, very old tradition, has the power and ability to bring to every house in which he is brought an abundance of everything with which he is laden and there are many who still believe this. He is made of stucco, his mouth open and arms extended; his clothes are painted on him; he is loaded with almost everything that man uses: sugar, rice, flour, coffee, tea, chocolate, potatoes, coca, *chuño* (dried potatoes), *chalonga* (dried mutton), corn; every edible the country produces, not forgetting feed for the animals; and besides all these things in tiny, tiny bundles, he is burdened with scissors, pots, pans, kettles, dishes, vases, matches, cigarettes, cigars, saddlebags filled with money, and whatever can be imagined; on his head is placed a gay, knitted cap of many colors and over this a straw or felt hat with a bird's wing on it. He is so heavily heaped up that he himself can scarcely be seen and too heavily loaded to stand alone. The prices vary with the size—I bought an "Ekeko" with all his appurtenances for four *bolivianos*, at that time, about \$1.20.

Besides the Ekeko, you may buy in miniature, also of stucco, the "cutest" little doll houses with lovely gardens and fountains; whole farms with cattle, sheep, horses, burros, etc.; a *panadero* with a basket of bread on his head; a "Cholita" selling vegetables; an Indian, man or woman, spinning; a nun at prayer. The local scenes are so cleverly depicted, so accurately miniaturized in their bright colors, that I just wanted to buy them all! I did buy so much that

HUANCHACA MINE—PULACAYO—FIESTAS

when Clarence returned from his mine examination trip to Santo Domingo and I was lamenting that he had missed "Alacitas," he said, "It seems to me you have it all here," for I had spread out all my purchases on two big tables, the bed, the dresser and part of the floor. Besides the diminutive articles in stucco or plaster of Paris, there is for sale an almost infinite variety of dolls: Indian dolls, man or woman, the latter with an almost microscopic but perfect-in-detail baby in a *llijilla* on her back; Cholos and Cholas in a bewildering diversity of sizes and of gay-colored frocks; even Dutch dolls, French dolls and Eskimo dolls. And the "cunningest" furniture to go with the "darling" doll houses; white llamas, black, brown and spotted llamas; sheep, burros, horses, cows, alpacas. The farmer buys those toy animals, not for the children to play with, but for himself, and he takes excellent care of them for he believes he is buying them for the Virgin, who will intercede for him, that his flocks and herds will increase—seeing the tiny replica reminds her of what the owner wants. With the same idea the housewife will buy cooking utensils, a knife, a fork, a spoon (such "adorable" little spoons, some of solid silver with monolith handles—I bought three dozen!), a broom, a chair, a sofa, whatever she may want for the coming year. A carpenter will buy "baby" tools of his trade, a shoemaker that which he may need, etc. Now, wouldn't it be a splendid idea if one could thus buy a miniature package of kindness, of charity and unselfishness?

From the countless, happy, shining faces of the children that I saw in this plaza every afternoon, and morning, too—for I almost "camped" at "Alacitas,"—I am quite sure many of the articles were bought for toys to be used as such. The Indian and his family were, of course, dressed in their very best ponchos, while the Chola fairly scintillated in her best "bib and tucker," which would have to be translated into white, stiff hat, ponderous earrings, gorgeous silk shawl, gay-colored skirts and high-topped, tasseled boots. There was no drinking nor carousing and while policemen were in evidence, "Alacitas" was more orderly and a "heap more" inter-

HIGH SPOTS IN THE ANDES

esting than all the other fiestas put together, also much more attractive than many a street fair in the "good old U. S. A."

I must not write another word, for this letter is already too "fat" and "fat" letters are apt to go astray.

CHAPTER IV

MORE ABOUT PULACAYO—THE STRIKE—OUR EXIT

Santo Domingo Mine, Oct. 11, 1931.

DEAR BYRDIE-BYRD:

I am so glad the bulky letter reached you and also the package of photographs. I think your idea to number a sentence or paragraph and put the corresponding number on the photograph for reference is "good and timely" and I shall proceed to carry out your suggestion. So you, too, were tremendously interested in "Alacitas"—I can't conceive of a person who wouldn't be. I am positive that "Ekeko" (which means dwarf) and his numerous cargoes are strictly native-made and perhaps the Indian and Cholo dolls, but the French and other foreign dolls and a good many of the toys have the smack of being "made in Germany"; but nevertheless, even if everything was imported, the "copying" is exceedingly clever and one would learn more of customs and costumes in the three days of "Alacitas" than in that many years of merely traveling. It is interesting to note here that the La Paz City Council is making every effort possible to encourage homemade products and is discouraging imported articles with excessive taxation.

You say I wrote a lot about the Indian and the Cholo but have not even mentioned if there are other people in South America. I "stand rebuked." But in all my letters, please bear in mind that almost all I tell you is from the viewpoint of a mining camp, that my home in South America has always been in a mining camp, that our visits to the capitals or to the cities have been few and far between and then usually visiting "Gringos." Naturally, at a mining camp there are many more Indians and Cholos than the *gente decente*, most of whom in my acquaintance have been comprised in

HIGH SPOTS IN THE ANDES

the "white-collared" employees in the office, as time-keepers, etc.

As the distinction between the animal and the vegetable kingdoms and between the vegetable and mineral kingdoms is not clear-cut, so, I take it, is the distinction among the three classes down here. Broadly, this is my idea: the Indian, like our own, is a descendant of the aborigines, who were here when the Spaniards came; our forefathers killed off most of our natives but down here—"for better or for worse," who knows?—the Spaniards, while they tried mighty hard, did not succeed as we did in almost obliterating the "poor, red man." The psychology is too much for me: the Indian at home would not work, down here, he does all the work. Now, would the Cholo and the *gente decente* have made a god of work (shall I spell it WORK?) if the Spaniard had succeeded in exterminating the Indian? Would our colonists have worked so hard, if the Indians had done their work for them? Of course, we know the motives of the colonists were so radically different from those of the Conquistadores, but I wonder if the entirely different character of the South American Indian from that of the Northern may not have had some slight influence, at least? The Cholo, as I wrote you earlier, has a mixture of Indian and some foreign blood, generally Spanish; and be this admixture ever so slight, say 90 percent Indian, he "looks down" on the Indian. Nothing will insult him more than to call him an Indian. (Page our late President Wilson's second wife or Will Rogers and see what they think of their Indian blood!) The *gente decente* disclaim any Indian blood at all, claiming usually pure Spanish ancestry, but any mixture except Indian will do. Aside from birth there seems to be the distinction of occupation as well: the tailors, shoemakers, barbers, those who work with their hands, are the Cholos while the lawyers, doctors—the professional people—are *gente decente*. Just call a *gente decente* a Cholo and see the fur fly! I remember when teaching at Cochabamba, a young girl in *sotto voce* called a student-teacher on the playground a Cholo and he overheard it. Was there a row? Any high school squabble or faculty fracas I ever witnessed—and you know I had my share of

MORE ABOUT PULACAYO—THE STRIKE—EXIT

them—was a mere bagatelle compared to this. The “Direktora” threw up her hands and exclaimed, “Now we have a mess on our hands!” The girl was induced to apologize (I know it was with the same reservation as Galileo—to her, he was a Cholo anyway), but the girl’s parents had to come, too, and they with the daughter retract before the entire school, apologizing for anything derogatory that might have been said about the young man; it was a stirring event and the very funny part to me, at least, was the fact that they were all Cholos! Or so the Principal told me. Soon after we settled in our new home in Pulacayo and I was still a live question mark, we had the Head Accountant as one of our guests at dinner and I asked him if he would please tell me the difference between a Cholo and an Indian. He said, “Mrs. Woods, there is no difference but there is this distinction: the Cholo wears shoes and his feet smell, the Indian doesn’t wear shoes.” In his department nearly all of the Indians and Cholos came under his eyes—and nose.

How did we pass the time when there were no fiestas? Ah, my dear, even with no household cares, the time did “fudge it.” At first I made myself read Spanish instead of English and after a while I really preferred the Spanish; I conscientiously “did” my hour of Spanish every morning and you, of course, remember my propensity for walking so I rarely missed a daily walk of three or four kilometers (a kilometer is six-tenths of a mile) and here on the “roof of the world,” I learned to play golf. We had a nine-hole golf course and we claimed to have the highest links in the world but I think this was challenged successfully by Cerro de Pasco of Peru. At Chojñacota, where we later lived, and now here at Santo Domingo, the camp is so steeply located that it would be difficult to play “Ring around the Rosy.” Most of our time in Pulacayo there were six Gringas in camp, four of whom played bridge, so we had “Bridge Teas,” the non-bridge players dropping in for tea. Letter-writing became a restored art: I began writing “round robins” of anything special, such as fiestas or the strike, and a round robin was passed around among our many relatives—you know my large family and Clarence has *seven* sisters besides three

HIGH SPOTS IN THE ANDES

brothers and parents—and generally a copy to different friends, who likewise passed it on, and in this way we received many replies to one letter.

A wedding anniversary, a birthday, almost any pretext was seized upon to have a party, while Thanksgiving and Fourth of July were "red letter" days. Our men folks were very busy, however, so our parties usually began with a six o'clock dinner and were almost never late affairs. Almost regularly once a week, the millman's wife and I would have an "excursion" to Huanchaca, where the furnace of the milling plant was located. We went by electric tramway through a tunnel (the main tunnel of the mine) six kilometers or more long (almost four miles) and at the Huanchaca end we transferred to "mule tramway," a few kilometers more. We have also gone over the mountain by mule all the way, which is a very pretty ride. But the trip through the tunnel always had its thrills: sometimes the light would go out and we would be "stalled" hundreds of feet underground or the mules would be late in meeting us at Huanchaca. Once we were shown a snake in a bottle just as we emerged from the tunnel, the first snake I had seen in Bolivia, and for that reason this one was put in a bottle; a snake at such a high altitude is a *rara avis* indeed. The tramway from the end of the tunnel to Huanchaca is literally lined with crosses, grim reminders of careless driving, although some may have been due to accidents while building the road, for a cross is almost always erected at the place of fatality and our first few times of going over this road we held on firmly to the seat and tried not to see the crosses.

The "mayor domo" at Huanchaca had a pet vicuña, several alpacas, a few viscachas and a great number of birds; visiting him was very nearly like going to the Zoo, and how he enjoyed showing off his pets! He was hospitality personified and if he knew we were coming, served us a delightful luncheon, but going so frequently, we intentionally did not advise him and brought a few sandwiches along. The plaza at Huanchaca was almost as interesting as that at Pulacayo even though the whole town was terribly "run down" on account of most of the works having been transferred to

MORE ABOUT PULACAYO—THE STRIKE—EXIT

Pulacayo. At that time Huanchaca boasted the longest furnace-chimney in the world, a mile or a mile and a quarter long, I have forgotten the exact length. Huanchaca was much more beautifully located than Pulacayo and had two pretty little lakes, so we not infrequently had picnics there.

About six months after our arrival in Pulacayo, the Manager's wife, all excitement, asked me over the telephone if I would take care of four distinguished guests for one night, the following night. Naturally I was at once on the *qui vive* to know what it was all about so she came on over and we feverishly discussed plans for entertaining, under the Manager's direction, the President of Bolivia with his family, the President's brother and family, Herr Kundt, the Head of the Army, the entire American Diplomatic Corps and the lesser lights who usually accompany such notables. They were coming by special train to visit the mine; the Administration House could not accommodate so many, hence each Gringo family was asked to receive as many guests as could be stowed away. We had one guest room and in a pinch could fix up another, so the American Minister and his wife and the American Consul and wife were assigned to us. Needless to say there was much "high pressure" planning: a banquet, as a matter of course, but a banquet for twenty visitors and thirty "regulars"—for fifty people—in a mining camp, even though a large one, taxes the resources to the utmost, particularly on such short notice. But everybody coöperated most heartily and at six in the evening, when the train was scheduled to arrive, the last detail had been taken care of. The banquet was held in the ballroom as the dining room would have been crowded. The camp guests were not to appear on the scene until a half hour after the train arrived, thus giving the "out-of-town" guests time to "doll up" and we were to take our respective guests to our homes after the banquet.

At six-thirty we were advised by telephone that the train was delayed and would not arrive until seven. I still remember how I sat before the electric stove, shivering in my evening frock; and when Clarence answered the 'phone almost an hour later, he was advised that no one knew when

HIGH SPOTS IN THE ANDES

the train would arrive but that we would be informed the moment of its arrival. Shivering and hungry, we waited and waited, we put on wraps, we waited, and at ten-thirty we heard the train whistle. At eleven-fifteen, the cold, tired, travel-worn, distinguished guests were being introduced to the cold, tired, waiting-worn camp folks, and at eleven forty-five, we sat down to a magnificently appointed banquet—how those servants ever managed to keep the hot things hot is a marvel but the cold things just naturally took care of themselves. I had the honor of being seated between President Saavedra and his brother but I am sure I made no impression whatsoever on either brother, for all I could “teeth-chatteringly” say was, “*Hace mucho frio*” (It is very cold).

Nevertheless, it was an elegant affair and in spite of the cold, the delay, etc., it was an event to be always remembered and I am not likely to forget it, for when we arrived home at four A.M., I discovered that I had put my party frock on backwards!

The late morning after, Clarence took the visitors through the mine, that is, the men of the party for women are decidedly *persona non grata* in any mine in South America. The Indians believe that if a woman enters the mine there is sure to be a fatal accident within twenty-four hours, and they so firmly believe it that they will at once quit work if a woman is seen in the mine. Hence, although Clarence was Superintendent of the mine at Pulacayo, Manager at Chojñacota and we now own the Santo Domingo mine, yet I have never been in a mine down here. I really do not care at all but I love to tease Clarence about wanting to see the mine. I have been down in the Treadwell mines of Alaska, in the gold mines near Tuolumne, California, and in a coal mine near Seattle, Washington, and they are all alike, just as Mark Twain said, “A hole in the ground,” but I most emphatically do not agree with him that “the owner is a liar.” Not so long after Clarence had taken over the mine at Pulacayo, the wife of the head mechanic had as a guest a teacher from Chuquicamata, who, girl-like, was “crazy” to see a mine; one night the mechanic had some repair work to do on the pump level and he was persuaded to take his wife and their



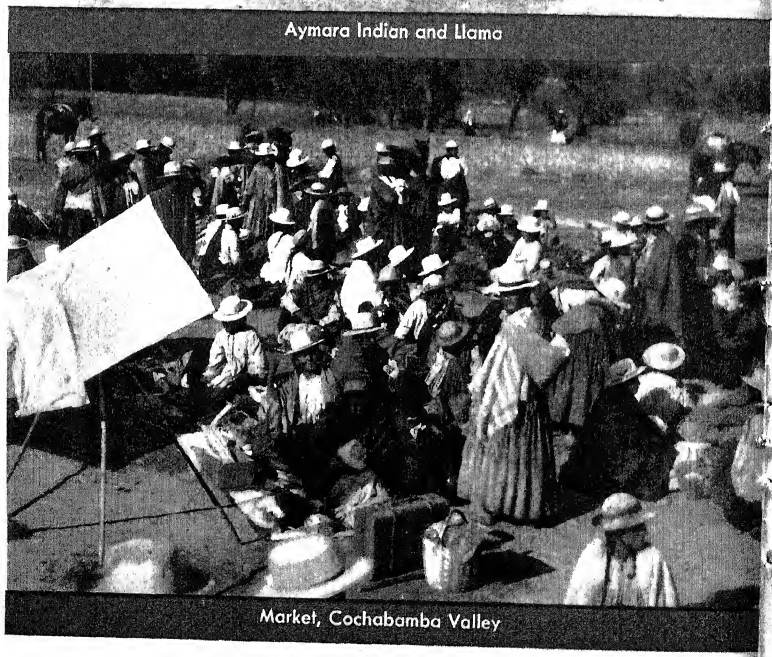
Coca Plantation, La Paz Yungas



Market at Huancayo—Selling Chancaca



Aymara Indian and Llama



Market, Cochabamba Valley

MORE ABOUT PULACAYO—THE STRIKE—EXIT

guest with him. The next day two men were killed, a fortuitous happening, of course, but a serious strike was averted only by posting a notice at the entrance of the mine that no one, not even the General Manager himself, would be permitted to enter the mine without an order signed by the Mine Superintendent. And I am positive no woman has ever and very likely will never receive permission from Clarence to enter a mine, for while he may not be superstitious himself, he believes in respecting the superstitions of others.

While I am on the subject of parties, I must tell you about our "house warming." We invited all the employees, about thirty. The doctor's wife helped me plan the games, all of which had to be in Spanish—we played "Stage Coach," "Roll the Platter," had charades, wrote "Consequences" and each guest was requested to tell a funny story, also in Spanish, so there was a great deal of merriment. It was the first "dry party" ever given in Pulacayo—I had brought down a gallon jar of real, genuine grape juice, which Guy, Clarence's brother, had brought to Orland from Portland, where Guy had made it from his own vineyard; I also brought down a half dozen quart jars of choice fruit from our ranch—and these containers were later prized as our most precious possessions. We served Bryan cocktails, a fruit salad, several kinds of sandwiches, cake and coffee.

I shall never forget that cake making—the first two cakes fell flat, so in despair I went to my next-door neighbor, who sympathetically said, "Of course, Mrs. Woods, you can't use your California recipes down here, I should have told you that; here you must use less sugar, less shortening and less baking powder; you pile on the icing to make up for lack of sweetness. I'll let you have my recipes but even with these, you'll have to watch the baking with both fingers crossed, for we never know what will happen." So Marcelina and I after much toiling and suspense did succeed in turning out four fairly presentable cakes, but I assure you they were not worth the effort. A really fine cake in a high altitude sends forth "great tidings of great joy" which invite all the neighbors to drop in to share the miracle. You never, never ask for baking powder when shopping but always, "Royál," ac-

HIGH SPOTS IN THE ANDES

cent on the last syllable; rolled oats or oatmeal is known only as "Quaker," pronounced "Quacker" with a broad "a". (Advertisers, please notice.)

And, perhaps, I might as well digress still further and tell you that everything must be cooked much, much, more in the high altitude, that the pressure cooker is indispensable, and even with a pressure cooker, that beans are absolutely "verboten." All cooked foods must be thoroughly well done and every single food made as digestible as possible; and, my dear, unless you are willing to spend almost all of your husband's salary on a varied diet, you'll have to learn to "live off the country": the *almacen* (store) carries an almost complete line of canned goods—fruit and vegetables from the United States, jams, jellies, marmalades and candies from England, fish from Norway, cheese from Switzerland, caviar from Russia, potted meats from France and whatever your fancy craves, but the cost is high, as high or higher than the altitude and which our pocketbooks could not stand; the first month's statement makes you dizzy and before the second is due, you have already learned to make your own marmalade from the delicious Chilean oranges—although a Californian, I admit the Chilean and Bolivian oranges are sweeter and better flavored than our well advertised "sun-kists"; you have already learned to make jelly and jam from whatever fruit the market affords: quinces, in season, are abundant and very cheap and they make the base for many a mysterious but "licking good" conserve; the runty hard peaches make delicious sauce, likewise the pears (I haven't seen a really good peach or pear in all my years in South America). Even the tuna (cactus fruit), with cream and sugar and a little lemon juice, makes a "different" dessert and, thank goodness!, the Mission fig is just as delectable and just as "utilizable" and just as cheap down here as at home.

It was in trying to lower the "high cost of living" that my half-dozen jars became so highly prized and not one ever remained empty; the grape juice jar became like the widow woman's cruse, not of oil but of vinegar—and it was not allowed to fail, for apple peelings, the parings of all fruits, were used for keeping up the supply of vinegar, and since a

MORE ABOUT PULACAYO—THE STRIKE—EXIT

bottle of table vinegar cost more than a dollar and salad eaters consume a lot of vinegar, that item alone reduced the monthly bill appreciably. Instead of canned corn, we used the native hominy and it was very good. We made our own baking powder.

Still more, a group of neighbors and myself made a twenty-gallon barrel of sauerkraut; one afternoon we were bewailing the high cost of sauerkraut and my "right-hand" neighbor, a Canadian, said, "Surely, Mrs. Woods, with that German maiden name of yours, you ought to know how to make sauerkraut"; and my "left-hand" neighbor, of Scandinavian descent, added, "Cabbage is so plentiful and so cheap now, let's try it." I had never made any alone but I had helped to make many a barrel of it, so right then and there we called up Mr. Lambert, Head of the Bienestar (Welfare), and asked him if the camp had a "krauthobel"; he replied he thought he could locate one so we asked him to let us have all the cabbage he could spare for the next three days and also to send up a nice, clean barrel. Mr. Lambert, you will readily infer, was very much in demand, for he not only looked after the thousand and one details incidental to his job, but he was invariably willing to "put himself out" for any extra or extraordinary request we Gringas asked of him; incidentally, he was a two-handed gunman, supposed to have five or six notches on his gun, and who had left the States precipitately and had left Chile between suns—his territory was becoming somewhat limited—but just the same, he was very popular and there was no doubt but that he inspired a "wholesome respect."

On the third day, my kitchen, my pantry and even my back porch were overflowing with cabbages, and then Mr. Lambert phoned that he was unable to find a kraut-cutter! My Swedish neighbor brought her maid and two butcher knives; my Canadian neighbor did likewise and we had a genuine "sauerkraut bee"; by night we were six tired but happy—at least three of us were happy—women, for the barrel was filled to capacity, with plenty of brine on top. I think in a month—it takes longer to ripen at 15,000 feet—it was ready and was it good? We told the world it was and

HIGH SPOTS IN THE ANDES

not only told him but invited him and his wife to many a feast of "wienies" and sauerkraut.

But, my! how I have rambled away from my dry party—perhaps, because it was "dry," you will not mind the rambling. But apparently everyone had a good time and they stayed very, very late. I had asked everybody to come promptly at eight and all the Gringos did; the "Nationals"—they prefer to be called Nationals rather than "Natives," for the latter has come to mean just the Indians—began arriving at eight-thirty and the last guest arrived at ten, without excuse or apology. It is *costumbre* (the custom); and believe this or not, but when I had "mixed" guests to dinner at six, I invited the Nationals to come at five; the Gringos always understood, but even so, we rarely could sit down to the table before six-thirty! The Bryan cocktails seemed to go over big.

Not so long after Clarence arrived at Pulacayo, he was sent to Punatuma to give the power plant a "once over" and while helping the natives pull a dead llama out of the canal he ruptured himself. He was too engrossed in his work to take the time off for an operation, but a year later the hernia became unbearable and at the insistence of the General Manager, we went to Chuquicamata where he entered their up-to-date and most efficiently managed hospital. I presume all hospital experiences are but variations of the same general pattern but I feel I must pay some small tribute to the splendid, sympathetic American nurses, who not only took such excellent care of Clarence but kindly soothed my "nerves" and gently calmed my fears. After a month at "Chuqui," we spent another month at Antofagasta for Clarence to recuperate. However, I must not forget to tell how very much Clarence and I appreciated the unvarying kindness of the hospitable "Chuqui" folks, especially the girls of the "Hen House" (where the teachers lived). I, too, was domiciled there, for the authorities at the hospital said I was too nervous to live at the hospital, but the "Hen House" was close and when Clarence was well on the way to recovery I was so taken up with the "Hen House life" that I persuaded the hospital authorities to allow Clarence to spend the last

MORE ABOUT PULACAYO—THE STRIKE—EXIT

week of his "sentence" at the house with "us teachers."

During our protracted absence from Pulacayo, many portentous events were happening at the mine; the mine was owned by a French Company, the Directorate was Chilean and the management, American—just imagine, if you can, the complicated bookkeeping. Everything had to be recorded in both Spanish and English, while the Monthly Reports had to be in Spanish, English and French; add to that, the constant fluctuating of exchange—for all items had to be converted into the terms of the *boliviano*, the dollar and the franc—it is a wonder the accountant and the auditor were not raving maniacs! While we were in "Chuqui," the American Manager was replaced by a Frenchman, who brought three of his countrymen with him. They seemed to antagonize the workmen and the employees right at the start. The three accompanying Frenchmen soon replaced three Americans and the "Exodus" began: one by one our American friends were "let out." Although none had been "sent down the hill" when we returned, yet we could see the "handwriting on the wall" and our once cheerful, happy camp became a sad one. Clarence asked to be relieved but his resignation was not accepted, as the mine was so large and its workings so complex that the new man must first become familiar with the labyrinth of tunnels before the old one could be spared. Finally the new Mine Superintendent arrived but by this time there were but two American families left, no, just the Woods family, for the other family was Canadian. The Frenchman who was to take Clarence's place could not stand the altitude and at the end of four days had to be carried out on a stretcher and placed on a special train for Antofagasta, where he did not improve; he then went to Valparaiso, also in vain, and later died in Paris.

Meantime, matters went from bad to worse; production fell off, orders were sent out and countermanded and sent out again until no one knew "where he was at." I told you that many of the workmen had been born in Pulacayo, that many of them had never been beyond Uyuni (about seventeen miles distant), so it is not at all strange that they looked upon the mine as their own. They became obsessed with the idea that

HIGH SPOTS IN THE ANDES

the "Viscacha"—as they had nicknamed the Manager on account of his bristling mustaches, which resembled the long whiskers of this gray-colored cousin of the rabbit—that the "Viscacha," for some sinister purpose, was deliberately trying to wreck the mine!

Finally, on January the 13th, matters came to a crisis; there had been many, many rumors of *huelgas* (strikes), so many that we had ceased to pay any attention to them, but this morning the Mill Superintendent told Clarence that the strike would take place at two that afternoon. Clarence found everything as usual when he made his customary round in the mine that morning, so he inferred it was just another rumor; but at one-thirty, a shift boss came to his office to tell him the miners were coming out of the mine. Clarence went at once to the Administration to notify the Manager, who said he already knew all about the impending uprising and that he knew how to handle the situation, so Clarence returned to his office and busied himself with reports.

Shortly before the clock struck two, men could be seen coming from the mill, the *maestranza* (shops), from everywhere, converging to the plaza, and at two, in a more or less orderly procession, the thousand men (not counted) started for the Administration. At the first indication of trouble, the women of the neighborhood gathered at my home, because from our porch there was an unobstructed view of the Administration Building and then, too, we all felt there was safety in numbers. We watched the men climb the outside steps, saw them go inside, could see them part way going up the inside steps, saw a large part of the crowd deploy on the veranda and then we heard a shot and a few seconds later another, followed by two blasts of dynamite, and this finished our "seem so" calm and each and every one of us "went to pieces." I did not know where Clarence was nor did the others have any idea where their husbands might be. To add to our terror, the Chilean wife of the Manager's French secretary began to tear her hair, all the while screaming, "*Mi Jorge, mi Jorge, estan matando mi Jorge!*", then the Peruvian wife of the American accountant, not to be

MORE ABOUT PULACAYO—THE STRIKE—EXIT

outdone, alternately pounded me on the back and pulled out her hair, screaming all the while at the top of her voice, "*Por Dios, por Dios, donde esta mi Federico?*" (The first woman screamed, "My George, my George, they are killing my Georgel" and the second rent the air with, "My God, my God, where is my Frederick?")

By this time my Gringa neighbor and I were sobbing, all of us hysterical, but at this juncture, "Jorge," the French secretary, appeared, assuring us, even shaking his wife to convince us, that our respective husbands were all safe and unhurt and fortunately Clarence did come in a minute or two and was followed by the other husbands almost immediately; then, somewhat calmed but still excited, we women with our men watched the frenzied mob drag the half-fainting, torn and bleeding Manager down the steps, through the plaza, and toward the railroad tracks. The women and children, mingling in the crowd, were worse than the men: they threw missiles of anything they could lay hands on, they spat at him, they called him vile names in Quechua, which happily we could not understand. The poor victim's face was smeared with blood, for he had been "crowned" with a *porteviarde* (a five-storied enameled dinner pail), his long, luxuriant mustaches had been ruthlessly cut off with a piece of *calamina* (galvanized iron), his clothes were in shreds—he was a sorry sight, more dead than alive. Then he was lost to our view but we learned that he was half-carried, half-dragged a kilometer or more down the railroad track; two of the other three Frenchmen were "man-handled" very roughly, too, but not so severely as their chief, while the fourth had been forewarned and "beat it down the hill" before the mob collected.

In the meantime a man hurried from the office to our home to advise Clarence that with the two shots we had heard, two men were badly wounded. It seems that the Manager did not want to kill any of the men, that he thought by flourishing a gun he could scare them away; but he did not understand the caliber of these infuriated men, who, apparently, had no fear whatsoever of death. The crowd had forced its way to the Manager's living quarters, where both

HIGH SPOTS IN THE ANDES

he and his wife were awaiting them, both with guns; the Manager aimed at the foremost man's legs but he kept right on coming; the shot hit him in the leg but the crowd, now a maddened mob, did not recede, perhaps pushed ahead, too, by those in the rear. A second man was shot in the foot, but he seized the gun from the Manager, while a third man hit him over the head with the heavy dinner pail; the Manager crumpled down from the blow and was then dragged out as we later saw; his wife, distracted, knowing not what would become of her husband, locked herself in an inner room.

Clarence went at once to see the wounded men and decided they must be sent promptly to Uyuni for medical attention, as our camp doctor had been let out a few days previously and his successor had not yet arrived; hence he ordered the train, with a first-class coach, to be made up immediately. When the milling crowd saw the first-class coach, they began to remonstrate, protesting a coach was too good for the "Viscacha," that a flat car was good enough for him; but when Clarence explained that the coach was to take two wounded men to Uyuni, that they needed the protection from the cold and possible snow, then the throng fell back and permitted the coach to be attached. When the train overtook the three exhausted, maltreated Frenchmen, they were put on the flat car, but when the train had put Pulacayo—and the mob—a few kilometers more in the rear, the Manager was carried into the coach to his wife.

During all this excitement and hubbub, the "*intendente*" (sheriff) and his handful of soldiers were conspicuous by their absence, and only when the train was made up and ready to depart did they appear from behind a hill and they escorted the Manager's wife to the train; she was a good sport, held her head high, disdaining the mob, mostly women and children (the men had not yet returned from conducting the three Frenchmen down the hill) who said dreadful things and spat at her but they did not throw stones. The Manager lay at the point of death for many weeks in Uyuni and was in a hospital at La Paz for five months. Clarence and I saw him and his wife as they were leaving La Paz for Valparaiso,

MORE ABOUT PULACAYO—THE STRIKE—EXIT

later to Paris, but they did not care to see us—and she and I had been such good friends, too. One of the wounded Pulacayo workmen died.

After the train had departed and the crowd was straggling back from its degrading pursuit, there was a short lull, a brief respite for us over-excited women and we were all breathing a little easier, when that whole multitude came marching right up to our house! Was I scared? I didn't know but what they intended to take my husband forcibly, too. And they did, but with what a difference! The spirit of the mob had completely changed; now instead of sullen, "hell-bent" faces, there were broad grins; the men, and women, too, threw their hats up in the air and shouted in unison, "*Queremos al Señor Woods, queremos al Señor Woods!*" ("We want Mr. Woods, we want Mr. Woods!") Like the children they really are, they had already forgotten the tragedy of just a short half hour before. Mr. Anderson, who had worked under the French régime as Head Mechanic, lived next door but they were still at our house. A group of men hoisted Mr. Anderson on their shoulders in typical football-hero fashion, another group grabbed Clarence, and so with the band playing patriotic airs and these two men in their elevated positions, heading the procession, we all (Mrs. Anderson and I were not leaving our husbands out of sight, not for one minute!) including what few Gringos were left and that whole multitude marched up and down, up and down, through the main thoroughfares and through even a few byways, with the restored American flag and the Bolivian flag flaunting gayly over the heads of Mr. Anderson and Clarence; when the music stopped just for a moment, the air was rent with, "*Viva Huanchaca!*" "*Viva la huelga!*" "*Viva al Sr. Anderson!*" "*Viva al Sr. Woods!*" "*Viva Bolivia!*", anything they could think of to "*Viva.*" I believe I even heard one "*Viva la Sra. Woods!*"

When they had shouted themselves hoarse, when the flag-bearers began to stumble, then in the plaza, several group pictures were taken—can you imagine a crowd, having so recently committed such atrocious, lawless acts, grouping themselves eagerly, even vying to obtain center positions, to

HIGH SPOTS IN THE ANDES

be photographed? But, then, they did not feel that they had done anything wrong, rather they were elated, for they believed they had saved the mine! After much speech-making, the waving of the two flags and patriotic music, the self-appointed "master of ceremonies" in "behalf of his fellow countrymen" declared Clarence "Gerente" (Manager) and declared Mr. Anderson Head of the Mechanical and Transportation Department. Thereupon more pictures had to be taken, this time with Clarence and Mr. Anderson in the center, the Bolivian flag high above them and our own "Stars and Stripes" just below.

At five—could it be possible it was only five?—those three momentous hours had been so stirring, so exciting, so thrilling, they almost seemed a lifetime—at five, Clarence looked at his watch and said, "People of Huanchaca, you have asked me to be your Manager, you have thrust the position on me. Well then, if I am to be your Manager, you must all do as I say, you must obey orders and"—but the crowd interrupted with "*Si, si, Viva al Gerente! Viva! Viva!*" so many times, that again looking at his watch, he continued, "It is now ten minutes past five; at six, the night shift will report for work as usual and all work will go on as if nothing untoward has happened—let us all work together." With a few more "*Vivas,*" the crowd quietly dispersed. I went with Clarence to the telegraph office, where he sent a message to the Directorate at Valparaiso, Chile, apprising them of the recent occurrences. At six the full night shift went to work—I should say *complete*, for, happily, throughout this disturbance, no one was "full"—there was no drinking at all. The following morning Clarence received a reply to his telegram, authorizing him to take entire charge of everything—and to "save the mine."

The Huanchaca Company paid its men every Saturday. On Friday the cashier or his assistant would go to Uyuni, cash the check for the about $B/40,000$ necessary to meet the payroll and return the same day; a policeman usually accompanied the cashier, and if there were an extra-large amount to be brought back, Mr. Lambert went, too. On the Friday following the *huelga*, Clarence went to Uyuni himself to

MORE ABOUT PULACAYO—THE STRIKE—EXIT

cash the check, signed by himself, but the bank at Uyuni refused to honor his check, even though he had the telegraphic authority; the banker really wanted to help out but said he was helpless—he could only cash a check signed by a Manager who had written authority. The ousted French Manager was still in Uyuni but, not unreasonably, he refused to sign a check. While Clarence felt that the workmen would willingly wait another week for their pay, yet he wanted to bring back the payroll, so he appealed to President Saavedra and after a few minutes' conversation over the telephone, the President of Bolivia assured Clarence that the matter would be satisfactorily arranged; but it was not until nine o'clock that night that the bank-cashier brought the *B/40,000*, a personal loan from the President to Clarence, and the train brought him and the money back early enough the next morning to meet all obligations.

The written authorization came before the next pay day and everything went along smoothly. The production increased appreciably, there were no labor troubles at Pulacayo during the four months that Clarence was Acting Manager, but about a month after he had assumed charge there was trouble at Punatuma, the power plant. A Gringo, who had been Head Mechanic at the plant before, was sent there to do some repair work and the workmen refused to let him enter the plant, even threatened him with a gun; the native in charge telephoned to Clarence for instructions; Clarence told him to send the mechanic back and at once ordered an official investigation. The Committee on Investigation reported there were many complaints against the Gringo, largely of his harsh treatment of the natives, and that the authorities of the village of Punatuma would not be responsible for his safety, if he were sent back. Thereupon, the mechanic, Lambert and Clarence motored to Punatuma (sixty kilometers), and when the thirty or more Cholos and Indians saw the mechanic in the car they began protesting to Clarence that they would not allow the mechanic to stay in Punatuma, but they fell back when Lambert descended from the car; and so with Mr. Lambert on one side

HIGH SPOTS IN THE ANDES

and Clarence on the other, the mechanic was conducted to the plant.

After looking the plant over and deciding that no one else could do this job, Clarence called the men together, told them that this Gringo was the only man available who could do this particular job, and it was imperative that the work be done at once; this gathering was in the front yard of the plant; Clarence went out among the men but Mr. Lambert paced up and down on the porch, ready for any emergency and the men knew it. Clarence issued an ultimatum that any man who did not want to work under this Gringo could draw his pay (he had borrowed sufficient money from the village priest to pay the entire gang, if such a contingency should arise), and that all those who quit would have to leave Punatuma the following morning. All but four quit and by nine o'clock the next morning, all the disgruntled men and their families had quietly departed. The Governor of the village secured new men, the mechanic was left in charge, Clarence and Mr. Lambert returned to Pulacayo and the repair work was completed without any further disturbance.

While it was "all quiet on the western front" and on all the other fronts all the remaining time of our stay in Pulacayo, yet I never saw a knot of men talking together but I feared another *huelga*; one experience of that kind is enough for a lifetime, the old camaraderie was gone, and when a reorganization made a "new deal" necessary, I was not at all sorry to leave Pulacayo.

CHAPTER V

LA PAZ—COCHABAMBA

Santo Domingo Mine, Nov. 5, 1931.

DEAR BYRDIE:

I was more than pleased to receive an air-mail reply and, of course, my dear, you may read these letters to your club; I feel quite complimented that you think them worth while and I know how the "personal touch" always adds to the interest: that you know the writer so well, way off in South America, enhances the "effect." Yes, I did end that "exit-letter" rather abruptly but then we left Pulacayo even more abruptly. However, I did scrupulously apportion those precious fruit jars between the two Gringas left in camp and if I remember rightly those two friends drew lots for the vinegar bottle.

Facing an unknown future, but fully decided in our own minds that we would remain in Bolivia a few years longer, we went to La Paz, the highest capital in the world, as it is almost always spoken of, and it does have the President's Palace and it does house the Senate and "Diputados," as Bolivia's Representatives are called, and the Executive and Lawmaking Departments are in La Paz; but the Supreme Court, the Archbishop's Palace and the main University are located in Sucre, hence, besides having the distinction of having the highest capital in the world, Bolivia may also boast having two capitals and both are well worth a visit.

One never forgets the approach by rail into La Paz; no matter from what direction you may come, you will have to ride for hours over the barren, monotonous *altiplano* (high plain), which, next to that of Tibet, is also the highest in the world; and then suddenly you drop, and a real drop it is, into a deep saucer, actually more like a gravy-boat, and the beautiful city of La Paz with its highly colored peaks its castle-like pinnacles of rock, literally bursts upon you

HIGH SPOTS IN THE ANDES

view—it is, indeed, like a restful, sunken oasis in a vast desert. It is situated in a *quebrada*, at the very head or beginning of the Yungas Valley. Illimani, its huge bulk towering more than 21,000 feet above the sea, capped with everlasting snow, seems but a stone's throw away—in reality, it is sixty-four kilometers ($38\frac{1}{2}$ miles) distant. The mountain may still have a German flag flying from its top: while we were in Chojñacota, a party of Germans from the Araca mine, a tin mine, in the Quimse Cruz (Three Crosses) section of the very high Andes, succeeded after several efforts in making the strenuous, hazardous ascent and the climbers planted the "Fatherland's" flag on the summit. Some Bolivians, and naturally, were displeased but the Germans merely shrugged their shoulders and told the malcontents that they were perfectly welcome to take the flag down! The Germans, as you know, are noted for their lack of diplomacy—it seems to me it would have been a much more gracious thing to hoist both the Bolivian and German flags. However, Illimani doesn't care and the chances are a million to one that that German flag has been whipped to tatters long ago and lies buried under tons and tons of snow.

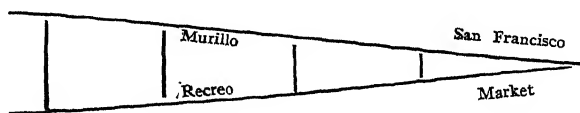
But not content with this gem of Illimani as a setting for one of her two capitals, Bolivia has added the snowy peaks of Sorata, Juana Potosi and Mururata, all of which can be seen as we approach La Paz, and it is indeed a rare occasion if one of them, at least, is not visible, although the others may be concealed in the clouds.

La Paz itself is very interesting—so high up in the world and so far from the sea. Arica, the nearest port, is about fifteen hours by train and a summit of more than 14,000 feet must be negotiated between the two, hence most all travelers avoid either the rapid ascent or descent; people have been known to "go out" completely and were resuscitated only with great difficulty by applying "canned" oxygen in the going almost "straight up," while even the descent oftentimes leaves suffering in its wake, such as nosebleed and a ringing in the ears. Mollendo, the Peruvian port, is two full days' travel from La Paz but it is the route most generally chosen by tourists, as it gives the beautiful trip across

LA PAZ—COCHABAMBA

Lake Titicaca and, if the tourist is making the trip all around South America, a side trip to Cuzco is made before crossing the lake. Usually, then, the traveler goes by train to Antofagasta, requiring one night and two days, and he thus not only "breaks" the altitude but avoids the long water trip. Hence, La Paz, in her proud isolation, unlike Lima and other coast cities, has kept her local color and this exclusiveness makes her the most worth while of any South American city to "sight see."

When you come to La Paz, under no circumstances must you fail to visit the Sunday Indian Market; it commences at the San Francisco Market, a colorful market itself every day in the year, and extends three or four blocks up the hill between and including the *calles* (streets) of Murillo and Recreo, and of course the side streets within the angle like this:



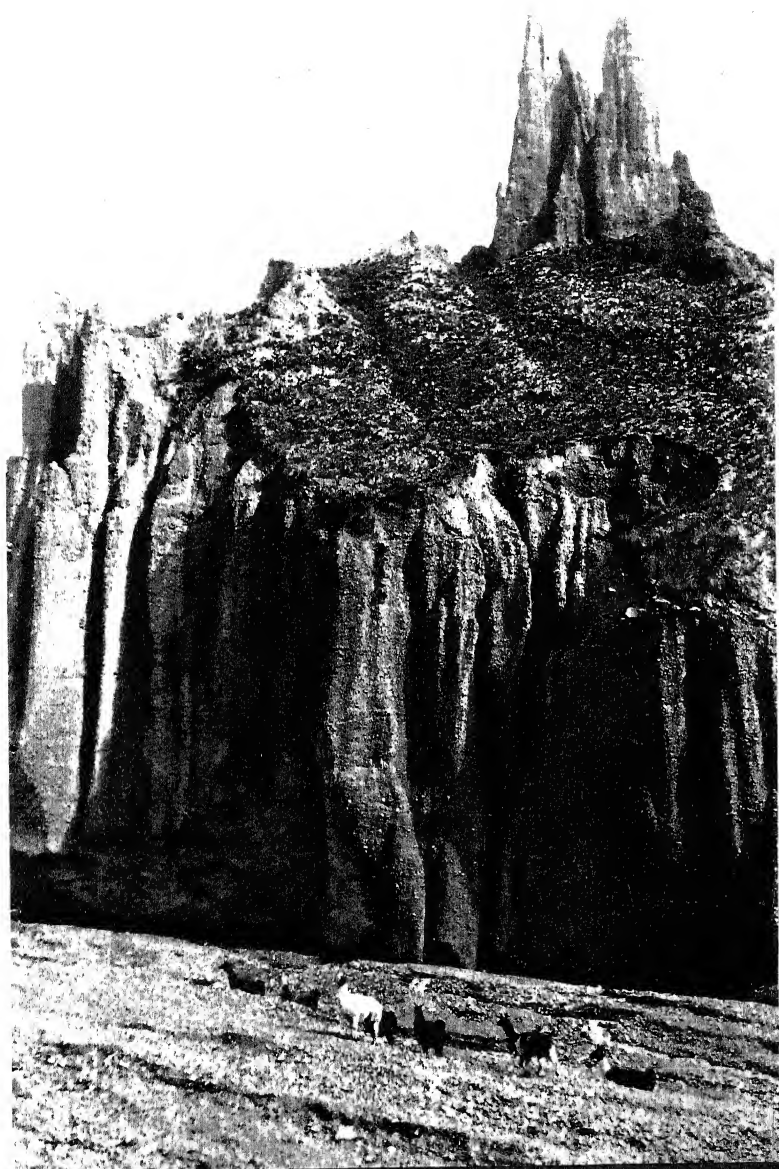
Here the Indians bring their produce such as *chuño* (dried potatoes), *chalonga* (dried mutton), corn, quinoa, onions, potatoes, quinces, pears—all the vegetables and fruits the country yields, chickens, ducks, turkeys, etc. And such a bewildering variety of knitted and woven articles! All hand made and formerly dyed with native dyes, but now with German dyes—boxes after boxes of German dyes can now be seen piled up amid the native wares. There is pottery, too, but more artistic pottery can be bought in Cochabamba. All these wares are displayed in the street and the shopkeepers along these streets take advantage of the crowds that come to see the Indian Market, to make a special display of their best and most brilliant offerings: *polleras* (Chola skirts) in all their vivid hues, with bolts and bolts of the *castilla*, of which the skirts are made, piled high in front of the shop; Chola *blusas* (blouses) more like basques, to match or more often in contrast to the skirt; Chola shawls, from an ordinary one of llama wool, to the finest cashmere

HIGH SPOTS IN THE ANDES

ones, beautifully embroidered—the silk ones are usually not exhibited outside but carefully guarded in glass showcases; Chola shoes and boots; *fardos*, bolts and bolts of the home-spun *bayeta*; an occasional cow-hide or bull-hide trunk, all studded with bright nails or oftener fastened together with bright-colored strips of hide—these trunks are called *patacas* and for souvenir-hunters are a real “find”; quantities of hand-made lace; such a variety of scarfs, made of alpaca or llama wool, woven and dyed in the most brilliant hues. Some of these scarfs are truly handsome and I know a woman who bought three of these beautiful scarfs, out of which she made for herself the most “fetching” and “chic” sports suit, that would be the envy of Fifth Avenue. But aside from the sundry and various “thousand and one” objects for sale, there is a constant shifting of kaleidoscopic colors, a mingling of ponchos, *polleras*, business suits with a sprinkling of “Gringa” street dresses, and while not so cosmopolitan as the marts of Alexandria, yet this Sunday market is in a class by itself, once seen, never forgotten.

Plaza Murillo is the main plaza of La Paz, a spacious, well-kept park of trees, ornamental shrubs, grass, flowers and fountains, a band stand at one side, with the President's Palace and Cathedral (still unfinished and already many, many years in the building) enclosing the “park” on one side; the Senate and House of Representatives at right angles to the Palace and Cathedral, enclosing this side, while the two opposite sides are taken up by commercial buildings. This plaza is nearly always busy, while on Sundays and band concert nights it is almost literally “packed”; it has been said that if you hang around this plaza long enough, you are sure to meet anyone you know in La Paz.

The “Mercado de Flores” (Flower Market), just a few blocks down from Plaza Murillo, is a “thing of beauty and a joy forever”: such a profusion of roses—La Paz might very appropriately be called the “City of Roses”; sweet peas, piled up high on low counters; chrysanthemums in glorified array; the most wonderful daisies, sweet-smelling, and a daisy called “Faust's Marguerite,” resembling our Shasta Daisy; many, many marigolds; pansies, large velvety ones, by the



Pinnacles, La Paz



LA PAZ—COCHABAMBA

carload; lilies of many varieties, the overwhelmingly fragrant Madonna lily and the Easter lily, very much in evidence at all funerals; dalias (that's the Spanish spelling), poppies, petunias, forget-me-nots, jasmine, gladiolas, the "romantic" magnolia, the meek primrose and still many others, whose names I do not know. Any time of the year, you may buy plenty of flowers but, of course, they are seasonal here, too. We Californians are accustomed to a profusion of flowers and if we have occasion to buy any we expect them to be cheap, but the prices in La Paz are about a third, approximately *centavos* to our cents, so a New Yorker would feel himself a millionaire in the flower market of La Paz. At this same market you can also buy the most "adorable" baskets, all sizes and shapes, made of reeds and grasses, most of them from Copocabana, an Indian village located on a peninsula in Lake Titicaca, about four hours by automobile after you leave Guaqui, the Bolivian port on Lake Titicaca; wherever possible the word Copocabana is woven into the basket or the water bottle or whatever it may be, in brilliant colors. Some of these extremely artistic baskets with excessively high, slender handles, filled with marguerites, or sweet peas, or roses, or what will you, would make a gift "fit for a queen" and at a price to fit the humblest pocketbook.

The Market of San Agustin, directly back of the flower market, is interesting and also fragrant but not so pleasingly fragrant; here are vegetables and fruit of all kinds, eggs, meat, fish, etc. You will wind your way through very wide aisles, wide enough for four or five persons abreast, and then through extremely narrow aisles with scarcely enough space to pass another person. On counters about three feet high, called *patitas* from the way the Chola sits on them, the Chola with her many, voluminous skirts sits, surrounded by her wares for sale. One Chola will be encircled by little pyramids of stunted, gnarled tomatoes, five or seven in a pyramid, and selling for twenty *centavos* a pyramid; another Chola will have little piles of potatoes, or *camotes* (sweet potatoes); still another is surrounded by little pyramids of oranges, usually five, sometimes as cheap as ten *centavos* for

HIGH SPOTS IN THE ANDES

the five—delicious oranges from the Yungas. In fact, almost all the flowers, fruit and vegetables come from the Yungas, now only a few hours by train and more recently by auto from La Paz, but I hazard a guess that almost ninety percent of the produce is still brought up on mules or burros. The market affords no paper bags or other containers, so you learn to bring your shopping bag and basket, and if unaccompanied by a servant, there are numerous *chicos* (boys), who, for ten *centavos*, will faithfully follow you around, carrying your purchases and even seem pleased at every additional burden, until it would seem they couldn't carry another ounce, and then cheerfully carry the heavy load for many blocks to your destination. (Of course they expect, and usually get, a tip.) I was particularly glad that I learned to know this market so well, for later when we lived at Chojñacota, a box of flowers and two baskets of fruit and vegetables were sent us every Wednesday, and I could make our want list so well that rarely were there any substitutions. La Paz has still another attractive market, the San Francisco, but I have described the others so much in detail that I will merely add that if you have exhausted all the other markets and stores for some special article, you will, nine times out of ten, find that very thing at the San Francisco market.

One of the other places of interest, exceedingly so to me, is the "Baby Home," a public institution supported partly by the Government but more largely by charity and called, "Asilo de la Gota de Leche," which literally means "Asylum of the Drop of Milk." Here, jutting the street, is a small vestibule, and facing the inner wall is a turnstile and, convenient to the reach, is a cradle-like affair; the unwelcome baby is placed in the cradle, the turnstile given a turn and the mother, or whoever deposits the baby, sees it no more—or, at least, so I was told when I visited the place one Sunday afternoon but I have recently been authoritatively informed by our national engineer at Santo Domingo, whose cousin is one of the Directors of this institution, that, if the baby has some identification tag or mark, accompanied by a written request from the mother that she wants her

LA PAZ—COCHABAMBA

baby later, when she can take care of it, then the identification of this particular baby will be carefully preserved, even until it reaches the age of eighteen. He did not know if there had ever been any mix-up such as a mother not getting her own child, but he said the great majority of the foundlings are never claimed, that it is not a strictly religious organization in that it is not supported by the Church, Catholic, of course, down here, but that these "Sisters of Charity" who take care of the babies are volunteers, usually devoting two years only at a time but that some "do" several "terms" also voluntarily. When the boy baby is seven, he is sent to the "Asilo José," also a charitable institution but religious, in that it is strictly Catholic; sometimes girl babies are sent here, too, depending on conditions; the older girls are trained to take care of the younger babies and they are "farmed out," too, as nurse girls or helpers, to respectable families, who must report at stated times to the "Sister Superior" at "La Gota de Leche," giving details of the health, conduct and usefulness of the child entrusted to their care. If there are more girls than room, then the surplus is also sent to the San José Orphanage, for they have two sections at this huge institution, one for boys and the other for girls. The boys are taught trades such as shoemaking, tailoring, carpentry, etc.; the girls learn to sew, embroider, knit and cook. One may buy the most exquisite hand work here, or you may bring your own linen, pick out your pattern and have the work done to order; most of this work is done by the girls but under the supervision of a Sister. As I understand it, not all the Sisters are nuns nor all the Brothers priests but that here, too, there are many volunteer helpers. Whatever the organization, the Asilo San José seems to be doing most efficiently a tremendous amount of charitable work and if you ever see a procession of the little girls or of the little boys, taken out for a walk, you wonder if there can be any more children in La Paz, and yet these orderly processions of uniformed, clean kiddies must wind their way in and out among a seemingly countless rabble of ragged, dirty street urchins.

This, my first visit to La Paz, was of six weeks' duration,

HIGH SPOTS IN THE ANDES

the latter five as a teacher in the American Institute; true to form, I visited this school and it, too, like the one at Iquique, was needing another teacher, one who could teach English, and it was a happy arrangement, for not only was I glad to be of service, but I was so comfortably and gratifyingly made to "feel at home" while Clarence was making connections for a worth-while job. The American Institute is a Methodist Mission School. I believe there are such schools in many countries of South America; I know there are two in Bolivia—La Paz and Cochabamba—and I learned to know these two quite well.

At La Paz I had my first experience—ah, how many "first experiences" I have had since coming to South America!—of teaching kindergarten and I said to the "Direktor," "But, I don't know a thing about kindergarten," and he replied, "Oh, you'll enjoy it and it is only for a few days anyway." And did I enjoy those few days of kindergarten? I was genuinely sorry to see the regular teacher return and I learned a lot more from those adorable kiddies than they ever learned from me. One of the older tots would confidently put her little hand in mine and all unconsciously teach me how to play their games, to "step off" their clever little dances, and how they would—those appreciative kiddies—how they would apply themselves to any little task I assigned them! (I diligently *studied* every kindergarten book or plan the "regular" had left in her room or at school.) I fully decided that if I had my life to live over, I would surely become a kindergarten teacher!

Besides this class, I had four others, teaching English to kiddies ranging from eight to sixteen years of age, boys and girls segregated, but the Institute does have many classes with boys and girls together and I think I am right in saying that the American Institute was the first school in South America that "dared" to permit boys and girls to recite together or to work in the laboratories together. I wish I had a "Prospectus" here so I could give you definite information about this excellent school but the prospectus would not tell you that these American teachers are the "salt of the earth," that in spite of their meager salaries, they do,

LA PAZ—COCHABAMBA

individually, an incalculable amount of charity work, that their regular teaching work is kept up to standard all the time and that, even though they are missionaries, they are not long-faced "killjoys" but a cheerful, happy, optimistic and earnest group of teachers, whose influence for good, and more by example than precept, is much further reaching than they themselves dream of and this influence is steadily increasing. I think the La Paz Institute had about 500 students, when I was teaching there—it has overtopped 600 since—with about 50 boys in the "Internado," dormitory for the boys who live at the school, and about 25 girls in the "Internada." The faculty consisted of the Direktor and his wife (for almost invariably the wife teaches, too), nine or ten American teachers, usually heads of departments, and I just haven't any idea of how many national teachers and student-teachers. Quite a few of the graduates go to the "States" for normal school or university training and return to the Institute to teach. The buildings (and it is really quite an imposing plant) are situated near the Prado, the "Unter den Linden" of Berlin to La Paz; this Prado which was so feverishly dug, filled, patted and macadamized, then planted to have it ready for the "Centenario," beginning August 6, 1925.

This was also my first experience of living at a school; for me it was delightful but as a "steady diet" I think I would prefer to "lock the schoolhouse door, leaving all the cares inside." It must be a tremendous responsibility to look after the health and welfare, with all the thousand and one details which the latter implies, of a bunch of healthy, curious, hungry, growing young animals, to be at their beck and call any hour of the day or night, but these twenty-four hour duty teachers had all the appearance of thoroughly enjoying their work; everything was so systematized that interruptions were exceptional.

But living at the Institute makes me think of American "eats": you may hear people rave about German *bratwurst*, English "teas," French pastry, Italian *empanadas*, South American *chili* dishes, etc., and all these countries do have good food and good cooking; but the whole group together,

HIGH SPOTS IN THE ANDES

indiscriminately or piled, that is their specialties, one on top of another, the sum total of all their best cooking can't compare with a good "square" American meal of fried spring chicken with milk gravy, mashed potatoes, hot biscuits, corn on the cob, and topped off with strawberry shortcake or ice cream, or both. The American Institute served good, wholesome, appetizing American meals but also had native cooking for its "clientele"; it is better not to dwell on "eats" away from home, but take it from me, if you are especially addicted to having your food "just so," if you are not happy unless you have dined well, don't leave the States. Native cooks can be taught "American style" as I know from pleasant experience, and they can be taught and trusted to thoroughly sterilize all uncooked vegetables, especially lettuce for salad, by first soaking them in dilute solutions of potassium permanganate or iodine, so if you are keeping house, why worry? It is the finicky tourist who must suffer.

And "eats" reminds me of American apples—they can be bought in any of the large markets for thirty *centavos*, at that time about ten cents, apiece—not so bad, for we have paid ten cents for an apple in Boston; but any American apples, no matter from what locality, are always sold as California apples (if you intend to send this letter to any Florida friend, better delete the apples). There are only two fairly well-known states, New York and California, throughout South America, and sometimes I think a good many people regard New York as a city in California!

The American Institute has tennis courts, football *canchas*, an out-of-doors skating rink and encourages athletics of all kinds; the friendly rivalry with other schools has done much in breaking down prejudices. The school takes children from kindergarten and graduates them as what would correspond to our high school seniors; a friend of ours, who had his two little girls in the American Institute and later placed them in the public schools of Berkeley, California, was very much pleased that his two young daughters were "up to grade" and very highly gratified at their teachers' praise of the excellent training they had had. A son of another friend of ours graduates this year from the

LA PAZ—COCHABAMBA

Arizona School of Mines; he finished the La Paz American Institute and in spite of the handicap of his halting English, became an accredited freshman and will get his degree after the four years' prescribed work. A very encouraging sign of the trend of the times is the large number of girls enrolled in the Commercial Department. Some subjects as Bolivian history, geography, civics, etc., are required by law to be taught in Spanish but every child must study English and on the whole the children learn to speak English very well.

At the end of five weeks, Mr. Washburn, the Direktor, asked me to go to Cochabamba, exchanging work with his wife; naturally, he preferred to have his wife and their two really charming children with him in La Paz; he also asked as a favor, that I finish the school year at Cochabamba—the same old story of not wanting to change teachers so near the close of the year—and much as I disliked the idea of being separated from Clarence that much longer, yet I felt I should grant this favor, not only dutifully but gladly, as a slight recompense for the genuine hospitality accorded me. And I was a guest at the Alumni Banquet in Cochabamba!

So I left La Paz; with regret, on a Sunday morning at seven-thirty—there are but two trains a week—traveled all day over the monotonous *altiplano*, my first experience of traveling alone in South America, and arrived late in the afternoon at Oruro, where all passengers for Cochabamba have to remain all night. I stayed at the Hotel Hispano-Americano, largely because it was so near the station; it was not so bad, and sometimes "not so bad" may mean the highest praise. The train departs at eight or thereabouts the following morning over one of the most tortuous and "switch-backing" roads I have ever seen, descending through the pretty Cochabamba valley to a little less than eight thousand feet; the train stops about five-thirty and goes no farther; we have arrived at Cochabamba, and apparently, every man, woman, child and dog—Cochabambinos—are at the station to meet us. Mrs. Washburn rescued me from the throng of *chicos*, who seemed determined to relieve me not only of

HIGH SPOTS IN THE ANDES

my suitcase but of my handbag, gloves and even my handkerchief! Then we rode in a taxi through narrow streets, through the large, very attractive main plaza, through more narrow, very bumpy streets, almost to the other extreme end of the town, where we stopped before a high adobe wall, then walked a few steps to a tall, ornate gate, whose huge knocker Mrs. Washburn deftly manipulated and almost at once the gate was opened by the gardener, who conducted us through still another gate, across an immense cemented patio to a room at whose door, Miss Danskin, the "Direktora" of the Girls' School, smilingly welcomed us, and a little later conducted me to a very large, high-ceilinged room, redolent with fragrant flowers and with a balcony overlooking the most wonderful, the most enchanting garden it was ever my privilege to know—a veritable fairyland—and this was my happy home for four months.

This school had formerly been a very wealthy man's home: it was a two-story, adobe mansion with vast rooms built around an enormous patio; all the rooms, upstairs and downstairs, opened out on extremely wide, "high vaulting" porches; the opposite side of each room had at least one balcony, some, three, either overlooking the street or the garden. When the school authorities took over the property, the main patio was converted from a flower garden to a roller skating rink, with smooth concrete flooring. Almost every night we skated—I had always loved to skate, both on roller and ice skates; and now under the big arc light in the center, we teachers skated and skated. We had many skating parties and we had one big masquerade!

Oh, for a "pianola" pen to describe the incomparable garden! (We speak of "pianola" hands at bridge, that play themselves, why not a pen, that would write all of itself?) This almost "perfect" garden was divided into nearly equal, very long halves by a broad walk between a row of eucalyptus trees—these trees grew very rapidly and were the main source of fuel for both the Boys' and Girls' Schools. Paralleling the eucalyptus (Spanish spelling) trees, all the way down to the swimming pool, were two rows of roses, roses of many varieties; beginning from the house and to

LA PAZ—COCHABAMBA

the right of the roses, were beds of pansies, large velvety "them's for thoughts" kind; beds of gladioli, other rare roses, lilies; sweet peas almost the full length of that long adobe wall; ornamental shrubs, citrus trees, oleander trees, magnolia trees—most of the trees with beds of violets snuggled at their bases; fruit trees, peach, cherry, pear—and here I saw my first chirimoya tree. I had eaten the fruit in La Paz for the first time, a very sweet, rich, pulpy fruit with a taste like a cross between pineapple and peach; it has seeds, black ones, resembling watermelon seeds somewhat, in the rich, creamy pulp; outside it is a dark scaly green, somewhat heart-shaped and about the size of a small pineapple. If you eat too much chirimoya, there is apt to be a faint taste of turpentine, but "Oh, boy!" chirimoya ice cream is something to write home about. Beyond the orchard and extending to the rear wall was the vegetable garden and many of the teachers—but not I—took their exercise by helping the gardener hoe, weed, etc. And here I saw artichokes growing for the first time. All of the left half, beginning from a small patio at the rear of the house, and extending to the rear wall, was given over to playgrounds, tennis courts, volley ball, etc. Shall I whisper that often when the students were all gone, and the gardener, too, had disappeared, some of us dignified teachers had the time of our lives, sliding down the kiddies' slides, "letting the old cat die" in their swings and even playing tag in and out and around the gymnastic paraphernalia? Ah, how many delightful, pleasurable and cheering walks I have enjoyed in this "super-attractive" garden! I presume as long as I live I shall continue to rave over this garden in Cochabamba and those majestic snow-crowned peaks of Chojñacota.

Elizabeth Danskin, the "Direktora," of English parentage but born in Chile, has devoted and is still devoting her life in unselfish service to educate the Indian, the Cholo and the *gente decente*; she is now in a similar school in Santiago, Chile. I count her friendship as one of South America's biggest gifts to me. Nor must I forget to tell you about the gardener: I have forgotten his name but having but one eye,

HIGH SPOTS IN THE ANDES

he had been dubbed "Cyclops" by one of the teachers (of Mythology, I presume) in the early days of the school and Cyclops he has been ever since; he was a faithful fellow and hard-working as you will infer he had to be, to keep this extensive garden so trim and beautiful, but he had the weakness of "hitting the bottle" periodically and each time he either resigned or was discharged—it amounted to the same thing with him—and regularly after two days off, he would sneak back in the garden and except for working harder than ever, there was no outward sign that anything unusual had occurred.

My work was indeed interesting and most agreeable: I taught the higher grades in English, girls in the morning at "our" school and boys in the afternoon at the Boys' School, although the senior class was "mixed" and I never had a finer-spirited class than those young women and young men of Cochabamba. Almost never did I have to remonstrate about an ill-prepared lesson—they were reading *Evangeline* and as absorbed and sympathetic in the tale as any northern class. How they did try to pronounce the "i" short and not say Meeses Goods instead of Mrs. Woods! (There is no "w" in Spanish and quite often in Pulacayo notes would be sent up to the house from mine bosses addressed to "Sr. Guts"!) The "s" is difficult for beginners in English and even seniors will say "e-strangers." The more I learn of other languages, the more grateful I am that "the accident of birth" gave me English so "early in the game" and to this day I marvel how the phonic-speaking Germans and Latins ever pronounce English as well as they do.

The Boys' School is also housed in an attractive building with a lovely patio (but it lacks the charming garden) and it is about four short blocks from the Girls' School. And while I am at the Boys' School, I'll relate a daily incident that occurred there: the Direktor was the proud and happy father of two winsome tots, who had to have fresh milk, so every morning about nine a cow was led into the patio, the Indian herder, in the presence of the Direktor's wife, thoroughly washed his hands, then the udder of the patient cow, then his hands again; a shining pail was in the meantime brought

LA PAZ—COCHABAMBA

from the kitchen and then the always surprised Indian induced "Molly" to yield of her abundance. And there was an abundance, for there seemed to be plenty of fresh milk for the two babies, for the "Faculty Table" (the Boys' School had an "Internado" but the Girls' School had only day students), and for us at the Girls' School for "good, old American" ice cream as a Sunday treat.

A phase of student life down here that is hard for "Americans" to understand is the student's active interest in politics. "*Quien sabe?*"—perhaps, our students take too little interest; but in the four months I lived in the Girls' School at Cochabamba, there were no less than four *huelgas*, all political strikes, which took *all* the children, even kiddies of six or seven years, out of school from a day or two up to the "ace" one, which began Saturday, August 1st, when the Students' Federation declared a *huelga*—a sympathetic strike with the strike on at Sucre, presumably due to the deporting of four obstreperous university students—and the strike was not called off until August 22nd! We did not "keep school" on Saturdays but on this particular Saturday we were intending to have a special parade practice for the Independence Day celebration, August 6th. Miss Danskin and I were with our girls, taking them to the "Olimpico," where all the schools of Cochabamba practiced for the big event (and incidentally, the American Institute Girls carried off the prize for the best marching for several successive years; their uniform is navy blue kilted skirt, white middy with blue tie, white shoes and stockings and white hat). We had gone but a few blocks from our school when we were turned back by a Committee from the Students' Federation; Miss Danskin, who "knew the ropes," did not stop to "parley" at all and we "right about faced" our girls, who were glad to be relieved from the tiresome drill on such a hot day. On Sunday, the second, the Rektor of the Cochabamba Schools (not corresponding to our city superintendent but more like our county superintendent of schools with territory limited to the city) sent official notice for all schools to reopen August 3rd. We did, but no students appeared. I am taking the following from my diary opened

HIGH SPOTS IN THE ANDES

in front of me: August 4, no students; August 5, no students; August 6, Independence Day, the Students' Federation actually prevented any school parade! It was a near-Revolution, mounted police clashing with boys! Fortunately the good sense of the prefecto prevailed and the parade was called off, thus avoiding bloodshed. But from a teacher's standpoint, I think those boys should have been warmly spanked and then jailed for a few hours to cool off. My diary gives August 10th, 11th, 12th, 13th, "strike still on"; on Friday the 14th, I decided to go to La Paz to visit Clarence, who had charge of a tin mine, only a few hours' ride by auto from La Paz, and stay there until the strike was over. On Saturday, August 22nd, Miss Danskin wired me to return. Three whole weeks of "juvenile nonsense," yet taken seriously and even abetted by a large part of the parents. And in spite of all these interruptions school life went on.

I have told you so little about Cochabamba itself: it is the third city in size of Bolivia—La Paz, Oruro and Cochabamba; it is located in a lovely valley and would be "perfectly" charming, if it weren't so dreadfully dirty; the main plaza and a few, very few, streets are comparatively clean but merely walking from the Boys' School or from down town "back home," as soon as I entered our gate, I always had a feeling as if I were entering another world—such a clean sweet world. I ardently hope none of my good Cochabamba friends will ever know I have "talked about" their city but some experiences are indelible: several times while going to the Post Office twice a week with the Hortons, the three of us missed, by a mere step, being drenched with slops from the bedroom! And most of the streets smell as if such were a nightly occurrence. "They say" that Cochabamba has more churches for its population than any city or town in all South America; it may be true but I think Lima and Cuzco must run a close second.

Just across the narrow street from the Girls' School, also running the full length of the block but unlike the School, which extends but a half block laterally, is the huge Convent of Santa Teresa, extending two or more blocks laterally;

LA PAZ—COCHABAMBA

its high grim walls enclose and forever bury who knows what tales of joy or grief or even tragedy? For "they say" that once the gates close behind a nun, she never sees or is seen by her folks or friends again. The convent bell rings every morning at four; a few minutes earlier, a sweet, clear soprano voice may be heard singing a "Te Deum," apparently from the very house-top. I only heard the singing twice, for I am, as you know, constitutionally opposed to early rising, but the teacher whose room abutted that street used to set her watch by this singing.

Thursday, July 16th, was a religious holiday and the church part of the nunnery was a scene of great festivity. Mrs. Horton and I visited the church—it was magnificently decorated, banks and banks of flowers and countless lighted candles. On this same day we went to the "Coronilla," where a monument is erected TO THE HEROIC WOMEN OF COCHABAMBA, who in the war with Chile in 1879 entered the battlefield with the men and fought more desperately than the men to win the losing fight.

On another holiday—and there are so many holidays and what with strikes, too, it is a wonder that schools function at all—Miss Danskin showed me a small hill where the Chola goes to pray to the Virgin, that she may be given a child, for the Cholas believe a childless woman cannot enter heaven; we did not ascend the hill, so I do not know if there is a chapel here or not.

The environs of Cochabamba are beautiful and many an excursion did we teachers have by auto (rarely), by train occasionally, but oftenest by horseback—I shall never forget old "Isaac," pronounced "Esaak," whom I invariably rode and who was so trustworthy in every way except stumbling—he could stumble over the tiniest rock and once, when the Hortons and I were visiting the airplane landing field, Isaac almost stumbled over the "Junker"; the mechanic courteously "saved my life" and then invited all three of us to enter the plane, strapped us in, but we did not fly—that "first experience" was to come later in Lima.

It was at the Girls' School that Clarence and I were completely and everlastingly sold to the idea of a home with a

HIGH SPOTS IN THE ANDES

patio, for six months after I left, Clarence and I spent two wonderful weeks vacationing here; one can give such delightful affairs in a patio, out of doors, and still have all the privacy of a drawing room—but have you heard of the Dutchman who went crazy because he could not figure out how to make the hole of the doughnut larger without increasing the size of the doughnut? That is our problem—how to have a charming little home, yet with a big patio.

However, I think my present-moment problem is to finish this letter “pronto”—how I have rambled! I’ll conclude by telling you that the Alumni Banquet was so much like ours at home, with speeches and songs an’ everything, that I almost forgot I was so far away, until the dessert, merely fruit, was served; it was such an elaborate banquet up until then—but I presume I shall never get over my hankering for ice cream and “sech” to top off with. I have attended so many formal dinners and elaborate banquets in Bolivia and Peru, and still I have the feeling of being “let down” when the inevitable “just fruit” appears for dessert. (This banquet was given at a hotel and not at the school.)

Oh, oh, I almost let slip about the examinations at the close of school—they are so different from ours. Instead of our written finals, the “victims” have to appear before *tribunales*, committees of three teachers, two of their own and one outside delegate, who go to different schools to conduct the examinations orally. I was on a committee to conduct examinations one whole day at one of the public schools for girls—the poor things were too frightened to remember their own names—and committees from other schools were sent to ours; never may your own teachers alone give a final examination. Just imagine, if you can, kiddies of nine standing up before a committee of three august personages and trying to answer the simplest questions; older students are oftentimes more frightened than the younger ones. We do have this “inquisition” for a Master’s or a Doctor’s degree “up north” but candidates for degrees go into it voluntarily, these youngsters are but “dumb, driven cattle.”

Byrdie, you are a friend true and tried, especially tried, if you ask for more letters like this one.

CHAPTER VI

CHOJÑACOTA AMONG THE GLACIERS

Santo Domingo Mine, Jan. 3, 1932.

MY VERY DEAR "IVA GRACIOUS":

Your shocking news of our dear "Byrdie's" passing on has upset me very much. In the same mail I received such a pathetic note from Hal; it was heartbreaking, and now, if you did not urge me to continue these letters so joyously begun scarcely six months ago, I would not have the heart to go on, but you say that Byrdie herself, even when she was so very ill, requested that I keep right on, sending the letters directly to you this time and that you will pass the letters along "as usual." Ah, Iva, this "carrying on" is sometimes bitterly hard to do, but, after all, it is what our loved ones want us to do.

Before I take you to Chojñacota with me, I must tell you that the lower altitude at Cochabamba did me a world of good. I know that to you, who have never lived above three thousand feet in your life, even seven thousand feet seems pretty high, but remember that Pulacayo is nearly 14,000, La Paz only 1500 or so feet less, and I was this high, with the exception of the one trip to Antofagasta (Chuquicamata doesn't count, for while only 10,000 feet high, it is excessively dry, the wind blows every afternoon forcing the fine, powdery dust through every cranny, even through double windows, so it cannot exactly be called a health resort), for two years and while I did not feel the need of a change, yet my mind and body responded gratefully. I am sure I bored the teachers dreadfully at both schools by almost constant exclamings over the balmy air, by my deep, satisfied breathing and, worse still, never failing to tell them that my nasal passages were not all stopped up every morning, that I had slept so soundly and restfully and that I was

HIGH SPOTS IN THE ANDES

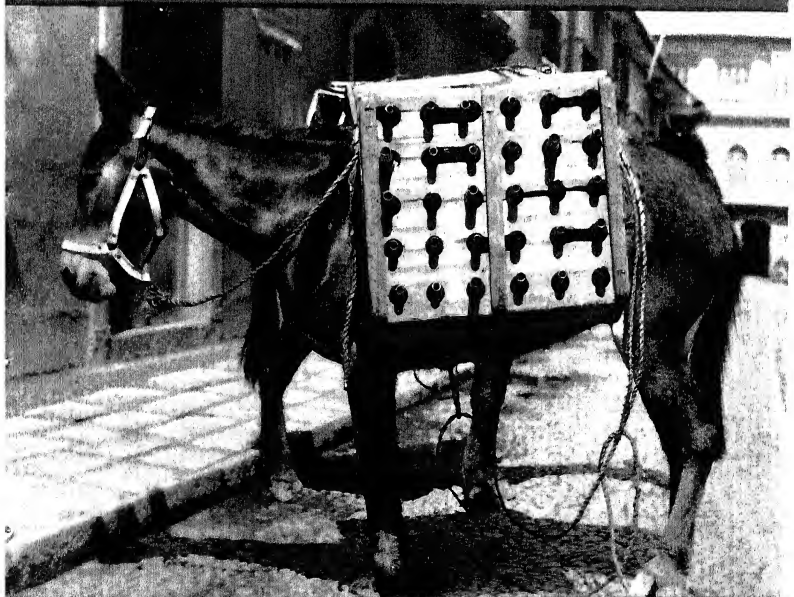
fairly reveling in wearing summery clothes—why, until the rains came, in October, I did not even need a wrap at night!

And thus with the Alumni Banquet as *despedido* (farewell) for me as well as for the seniors, I left Cochabamba the following morning, regretting to leave the warm friends and the beautiful garden with all its pleasant memories, yet anticipating the great joy of seeing Clarence, who was to meet me at Oruro, from whence we would go by train the following morning to Eucaliptus, then sixty miles by auto to Pampa Mina, where the power station is located, and where we would transfer ourselves and our baggage to mules for two kilometers (1.2 miles) “straight up” to Chojñacota, which was destined to be our permanent address and “cozy fireside” for three happy, interesting years.

The train ride, a very short one, from Oruro to Eucaliptus is over the same old *altiplano* toward La Paz; here a rather “the worse for wear” but still-in-good-running-order automobile, a Chandler, awaited us and almost at once we began to ascend, not so steeply at first, over barren, uninteresting country until we reached Caxata, about two-thirds of the way, and then, ah, then—those last twenty miles are over the most “breath-takingly” beautiful, “inspiringly” lovely, the most “make your hair stand on end,” the most “everything you can think of,” scenic and thrilling mountain road in the wide, wide world, I am quite sure. The *chofer* (Spanish spelling) pointed out peaks, telling their names, distances and relative heights, whether they were in Bolivia or Chile, but I was too busy catching my breath, holding on to the seat and earnestly wishing he would keep his two hands on the steering wheel, to remember even a single name. I knew we were in the Quimse Cruz section, that there are higher peaks in the Andes than those that were pointed out to us, but I also knew that we were in the highest mining section of the world, that the Caracoles tin mine, the Chojñacota, the Laramcota and the Araca tin mines are as high as the condor nests; that the equally fine road as ours, forking to the right, was the famous Caracoles road, that cost more than a million dollars and several lives in



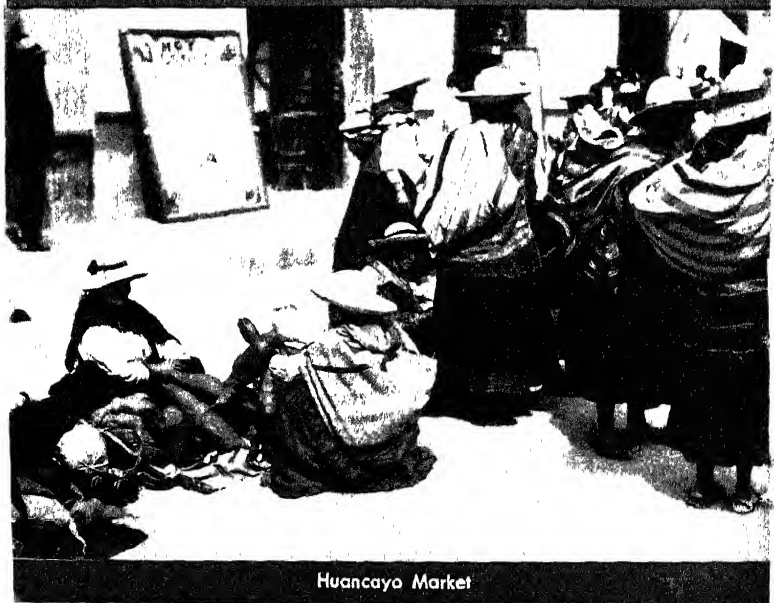
Plaza Murillo (main plaza), La Paz



Beer Wagon, La Paz



Making Chuño



Huancayo Market

CHOJÑACOTA AMONG THE GLACIERS

its making—all this I knew from Clarence's letters before I left Cochabamba but I was too thrilled, and I confess too frightened, to take in any details on that first trip. Those hairpin curves, incredibly sharp corners and looking down thousands of feet into space!—marvelously magnificent in its scenic beauty though the road is, I breathed a sigh of relief, I had a feeling of being miraculously saved from the jaws of death, when we skirted a deep blue lake and the car stopped at the power plant. On mules, we “back-tracked” that road around the lake and turned very sharply to the left up a fairly steep, wide road, wide enough for an auto and I wondered why we didn't stay in the auto, until we reached the waterfall—then I understood. The waterfall is the overflowing of the dam, built at the lower end of Chojñacota Lake (Chojñacota means Green Lake in Aymara) for conserving the water, which comes from the Chojñacota Glacier, not a mile beyond. It is the water from this lake conveyed through a pipe 1425 feet long, with a 585 feet drop, that furnishes the power for the mine, the mill and the camp.

I have sufficient reason to remember every foot of that 1425 feet of old, worn-out, twelve-inch iron pipe for every break of that old pipe meant a shut-down: no power, no heat, no light; a consequent loss of production but I fear I was more vexed at the physical discomfort than any loss of production. True, we had an emergency stove in the *sala*, in which we burned *tola* or *yareta* or *taquia*. *Tola* and *yareta* are somewhat similar—hardy bushes with heavy roots, that grow on the *altiplano* (we use roots and all, making a very hot fire but not lasting and extremely “messy”), while *taquia* is llama droppings and the “messiest” of all. We always had a supply of candles but trying to read by candlelight before a fire that alternately scorches and freezes is not nearly as comfortable as a Morris chair with a shaded electric light at your elbow and a steady electric heater at your feet. *Taquia* is used almost exclusively in La Paz and largely throughout Bolivia and fuel is one of the most expensive items in the cost of living. In our second year at Chojñacota this iron pipe was replaced by an eighteen-

HIGH SPOTS IN THE ANDES

inch wood-stave pipe and we had no further power troubles until the dry season, when our beautiful Lake Chojñacota was beautiful no more. Not only was our dazzling waterfall extinguished, but it even ceased to be a lake, degenerating into a deep pit with only a ditch of sluggish, "puny" water, too puny to "make the wheels go round"; hence a new plant was installed at a neighboring lake, Laramcota (Blue Lake), with a wood pipe about a thousand feet long—it always reminded me of a huge, gigantic anaconda or boa constrictor, slipping down among the rocks. The Laramcota plant is more or less a permanent monument to our stay in the neighborhood, for on a bronze plate on the huge dam of the Laramcota Lake is inscribed, "Clarence Woods, Engineer and Superintendent."

How I have digressed from the waterfall! Just beyond the waterfall, the road becomes a trail, cut out of solid rock, and we ascend very, very steeply until we are on a level with the dam, and then, the most beautiful panorama imaginable spreads out before you: the Chojñacota Glacier, the snow-capped Chojñacota peak to the right, the Laramcota peak, even higher, at the left, the zigzag trail up the highly colored mountain side, that leads to the mine, with the lofty snow-covered Monte Blanco towering above and its glacier partially hidden by "our" Chojñacota Glacier—a group of glistening snowy peaks with a background of the "bluest" sky is an "eyeful," and added to all this there are three lovely lakes, sometimes of the deepest blue, again a jade-green, the change of color possibly due to the reflection from the ever-shifting clouds. The second lake is about a half kilometer beyond Chojñacota Lake, also dammed for conserving water but is nameless, probably because it was such an uncertain factor; from this second dam, we get our first view of the little house, perched right over the lake, that bore the dignified name of Administration House, where we spent three happy years, mostly in entertaining, it seems to me as I glance over my diary, but yet rich in friendships and varied experiences. Julio, the cook, was at the steps of the glass-enclosed veranda to meet us and a little later, our "inheritance" of an English millman, Swed-

CHOJÑACOTA AMONG THE GLACIERS

ish bookkeeper, German Mine Superintendent, Irish storekeeper, Bolivian cashier and another Bolivian office man of this American company presented themselves.

It was such a cozy, comfortable, little house, consisting only of bathroom, bedroom, living room, dining room and kitchen—I am naming the rooms as they were grouped around the patio, but the rear of the patio was an almost sheer precipice of solid rock. The rooms were connecting, the ceilings low to conserve heat; it seemed like a doll's house after the immense Girls' School home at Cochabamba. This was my first experience of entering a home, a home for me, completely furnished to the minutest detail—I never even opened my boxes of linen, silverware, not even of "gim-cracks," all the while we were in Chojñacota, for at that excessive altitude there was no danger of moths, mice, nor, I assure you, of mildew! Our boxes were neatly piled at one end of the long veranda and shortly before leaving Chojñacota "for good," almost three years later, I had occasion to want something in one of our boxes and, by mistake, the carpenter opened a box filled with shoes! Samples, just for the right foot, of boots, shoes, slippers, all kinds and sizes and goodness knows how long that box had been stored there, for our predecessor, now our millman here at Santo Domingo, knew nothing whatever of that box of shoe samples; the shoes were in perfect condition.

On this, my first day in Chojñacota, Julio had an excellent dinner (noon) awaiting us, topped off with ice cream! After dinner, Clarence took me over to the guest rooms, about thirty yards distant (there isn't enough space to build a house big enough to include two large guest rooms in the whole camp), and those guest rooms were "a thing of beauty, a joy forever," connected with a white-tiled, up-to-date bathroom; if there had been housekeeping arrangements possible, I would have at once moved my trunks and suitcases right over to the guest house, but even ninety feet can become a long distance, when you are 15,623 feet (I do love to add that 23 feet) above sea level, when the wind might be blowing and when there might be flurries of snow, to go for your breakfast, dinner and supper.

HIGH SPOTS IN THE ANDES

The offices and the living quarters of the employees are clustered around the patio, one side of which is taken up by the guest house, which overlooks the lake and gets all the sunshine. But at the Administration House, it was necessary to go out in the veranda—ofttimes called the “green house” because we had every available space filled with window boxes of plants and flowers—in order to see the lake and, unfortunately, the veranda was on the south side, so what little sunshine penetrated came early in the morning or late in the afternoon from the ends. Then we visited the servants’ quarters, a tiny house opposite the kitchen, and “called it a day.”

My first ride up to the mine was an event: I just couldn’t see how a mule could cling to such a narrow trail and I admit I was badly scared, but I went so many times that I learned not to mind at all and comfortably assured every visitor whom I escorted over the trail that no mule had ever fallen off and that the trail was being widened every time a mule went over it! The mine is a thousand feet higher than the mill, which is directly beyond the offices and on the same level as the Administration House. The trail takes you through the miners’ camp, which is where the Mine Superintendent lives, too. At this camp was a boarding house, a “cinema” and a sort of athletic field—think of it, an athletic field more than 16,000 feet high! About three quarters of the way up, there was a *cancha* where the ore is sorted by women, the waste ore being dumped over the mountain side. The women work in this open *cancha* in all kinds of weather, pushing wheelbarrows loaded with heavy ore, or sorting ore ready to be put in wheelbarrows; bundled up to their ears, yet barefooted! When I went up with Clarence, I usually waited here at the *cancha* for him, for there is a comfortable house here for the “*cancha* boss,” rather an office, and if the wind were blowing too strongly or it were snowing too fiercely, I would take refuge in this office, but visitors, of course, always wanted to go “clear up” to the mine.

By climbing a little farther than the mine, the summit of the ridge was reached and the view was well worth the effort



Carnival Dance near La Paz



Indian Dancers with Ostrich Plume Headgears,
Sorata, near La Paz



Making Pottery, Cochabamba Valley



Indian Woman Weaving Poncho

CHOJÑACOTA AMONG THE GLACIERS

or probable scare. In any direction snow peaks can be seen: Illimani, Laramcota, Chojñacota, the latter so close it seems you could almost step over to it, Monte Blanco, with its huge bulk obliterating any further view in *that* direction; the glaciers of Laramcota, Chojñacota and Monte Blanco, and at least five beautiful, large lakes. And the auto road to Araca looks like a broad silver ribbon, folded back and forth and occasionally tied in a bowknot! Women folks could, of course, go to the summit but could go only to the portals of the mine—the inside of the mine was “*verboden*” to all “*skirts*”; as I wrote you before, the Indians have a queer notion that a woman entering the mine is a sure sign of an accident.

I learned to ride a mule in Chojñacota, that is, really ride; you know I stayed in the saddle lots of times on our horse-back trips in and around Pullman on good, paved highways but riding up and down, especially down, steep trails of the Andes Mountains is something different; but all these three years in the Quimse Cruz, I was merely being “*graciously prepared*” for the still steeper and much more “*scary*” trails in the decidedly lower eastern range of the Andes where we now are.

The tin ore is brought down from the mine in cars drawn by Ford locomotives to the *cancha*, the sorted ore put into loading chutes and loaded directly into the *andarivel* (aerial tramway) buckets and sent down to the mill; at the mill the ore is concentrated, the tin oxide with the sulphide, these are then roasted in the furnace, which converts the sulphides into oxides; this calcined product is reconcentrated in the oxide mill and the final product, tin oxide, called *barrilla*, is dried, put in hundred-pound sacks, sent on llamas down to the power plant, where it is transferred to *camiones* (trucks), taken to the railroad at Eucaliptus and shipped to England. In England, the *barrilla* is smelted into metallic tin and as tin plate is shipped to all parts of the world.

Ore stealing is not confined to silver or gold mines. Occasionally a workman would be detected selling a piece of especially rich ore to a *comerciante* (merchant or peddler) and, of course, he was “*fired*” at once and not allowed to return.

HIGH SPOTS IN THE ANDES

Before Clarence took over the management of the Chojñacota mine, all the *barrilla* was sent by llamas the entire way to Eucaliptus, requiring about fifteen days, but with trucks, which he installed, one day was sufficient from the mill to the railroad station. Llama trains continued to come for the haulage, and quite often the *barrilla* was sent out both by truck and llamas, but the *barrilla* was never entrusted to a train of less than a hundred llamas, the owner then being considered a "responsible party."

Once an Indian came with thirty llamas asking for freight but he was refused. The following day a very large train of llamas arrived, whose owner was well known, and the llamas were loaded with *barrilla*. It seems the "thirty-llama man" had persuaded the responsible man to include his thirty llamas. When the long train of llamas arrived at Caxata, the "thirty man" declared his llamas were too tired to proceed but that he would overtake his "partner" before he reached Eucaliptus. The responsible man waited as long as he possibly could before turning in the *barrilla* to the agent at Eucaliptus—it had to be shipped on the first train—and, of course, the agent found there were thirty sacks short. Clarence was at once notified and inquiries brought out that a workman of ours had been seen talking to this "thirty-llama man"; this workman gave the name of the Indian and of his village, about seventy-five miles distant. Our Intendente (Sheriff or Chief of Police) went to this village, saw the suspect on the street, loaded him into his automobile without giving the Indian a chance to remonstrate at all, brought him to Caxata and then asked him about the *barrilla*. The Indian pretended to know absolutely nothing, even denied his identity, whereupon the Intendente shoved him into the room of an old adobe house, locked him in and told him he could have neither food nor water for twenty-four hours, at the expiration of which time perhaps he would be able to remember better. But still he knew nothing. Another twenty-four hours of enforced fasting and still he was stolidly innocent, and then the Intendente took his riding whip and lashed him across the shoulders until the Indian begged for mercy and confessed that he had hidden the *barrilla* in

CHOJÑACOTA AMONG THE GLACIERS

a vacant house; he took the Indian to the vacant house and they unburied the thirty sacks!

There were about five hundred men employed altogether, the majority of which were miners, who lived in the camp I have already described; the mill workmen's camp was about five hundred feet above, almost "straight up" from the Administration camp, and at the mill camp was the plaza as it was "miscalled," for it was merely a pile of big, mostly flat rocks, but what little market there was, was carried on here. Chojñacota, unlike Pulacayo, was private property and the Manager was practically a "Czar"; *comerciantes* were allowed to come to Chojñacota only once a month, on pay day, and permitted to remain but twenty-four hours; alcohol was contraband, for Chojñacota was strictly dry. Hence this "plaza day" was a big event and all kinds of merchandise were sold.

The plaza was transformed into a sort of street fair, most of the "gewgaws" handled by Turks or Greeks but there were plenty of native merchants as well; usually fortune-telling, raffles and games of chance went on and unless the *sereno* (watchman) was constantly on guard, the gaming would become a real gambling bout. There was such a variety of things to eat: the same savory stew I wrote you about at Pulacayo, called *especerías* and made of meat, parsley, garlic, cumin seed, pepper, red and black, mint and *chijchipa*, a dried herb brought from the Yungas—try it some day, using sage instead of the *chijchipa*; breads: *allullas*, made of white flour; *quepichas*, made of whole wheat and barley ground together; *quispiñas*, made of *cañahua*, a seed resembling millet; *bizcochos*, made of white flour but a little "fancier" as it has more lard and has sugar sprinkled on top. A plate of stew and one of these breads would be a satisfying meal, but you would want to bring your own plate and I fancy you would not want to see the bread made. There was always *chupe* (soup) served red hot, not only from the fire but due also to the *aji* (red pepper): it is made of *chalone* (dried mutton), *chuño* (dried potatoes), *habas*, a large bean resembling the lima bean but of a light-green color, peas, potatoes and plenty of red pepper. A *segundo*, or second plate, called *ranga-ranga*, is made of tripe, cut in very small

HIGH SPOTS IN THE ANDES

pieces, cooked with potatoes, *chijchipa*, mint and plenty of red pepper. Sweets are conspicuous by their absence. The air is laden with the pleasing odor of these highly spiced cooking foods—it whets my appetite even now, merely writing you about it. The foreign merchants set up gayly colored tents or awnings, spread out their wares on hastily constructed counters; the Indians and Cholos, dressed in their best, spread out their produce, their hand-woven and hand-knitted articles on the rocks. Quite often one can “pick up” real genuine silver, hand-wrought goblets, pure silver spoons, fancy Chola shawls and brooches. The brooches consist usually of a cleverly fashioned fish with silver scales and ruby eyes—a fish seems to be a “lucky piece,” for it is used so much in their jewelry. This “busy mart” was always lots of fun, even if you didn’t buy a thing.

The *almacen* (store) was directly adjoining the plaza, but on this day, it might as well have closed its doors. Although this camp was much smaller than that of Pulacayo, yet the store was much better stocked: it seemed every new manager ordered in wholesale lots whatever foods he liked best, the succeeding manager did likewise, not caring for his predecessor’s taste, and thus there was an accumulation of the choicest brands of “pâté de fois gras,” deviled ham, other potted meats; fish in oil, in mustard, in tomato sauce; mushrooms, “petit pois,” “choucroute” (but the French do not know how to make sauerkraut), shrimps, lobsters, string beans, many kinds of cheese, the best that European markets afford besides a very large and varied assortment of American canned goods; all this to choose from, with fresh fruit and vegetables once a week from La Paz, plenty of eggs, chickens, turkeys, occasionally the delectable *perdices* (like our partridge), *viscachas* (like our cottontail rabbit), fresh beef or mutton at any time, so you can readily see we lacked nothing in the eating line.

We needed no refrigerators in Chojñacota to “keep” things nor to make ice. Ice cream? We had two freezers, one very large one and the other “family size.” With a glacier in our backyard, making ice cream was no problem and, fortunately, we all enjoyed frozen desserts—there is such

CHOJÑACOTA AMONG THE GLACIERS

an infinite variety of them now; but more fortunately still, one can eat ice cream or its many, many relatives at extremely high altitudes without ill effects. We thought Pulacayo was high and were careful of our diet, using a pressure cooker much of the time, but at Chojñacota, two thousand feet higher, overeating and particularly overdrinking (alcoholic) was practically suicidal. We had three pressure cookers, two of them in constant use, and our heaviest meal, from necessity, was at noon. High altitude is not conducive to fattening (overweights please take notice) and painful experiences soon teach one not to overeat.

In Bolivia, we almost never saw fresh pork—just why, I do not know; perhaps the people are afraid of the dreaded tri-china—but at Chojñacota we had ham, bacon and sausages, mostly from the United States, however.

I presume with all these “eats,” I should add that the Company kept a well-stocked sideboard of liquors, all the “makings” of cocktails, in our dining room; but when we left, three years later, it was nearly as well-stocked as when we arrived. It was not replenished either, for my husband is “unalterably” dry and cocktails or “whiskey straight” or “gin and ginger” were usually served only to officials, to those, who, we were “tipped off,” were accustomed to having them.

Adjoining the plaza but a little farther north was the camp boarding house, “run” by a Japanese, whom we also “inherited”; Abe (pronounced Abby) San made all the bread for the camp, too, and occasionally he would send down to us the most delicious rice cakes; he also helped me out wonderfully on our first Christmas there, which I will tell you about anon. To the right of the boarding house was the school-house and a playground “of sorts”; a school teacher, likewise inherited, did not stay with us long. I did not see him until the day he left, a week or so after our arrival, for he had been on a protracted spree all this time; Clarence said he was known to send his pupils out for *chicha* or *pisco* and then gulp it down right before his pupils! Clarence waited for him to sober up before “sending him down the hill” and I had been out for a walk and met him as I was coming up the

HIGH SPOTS IN THE ANDES

hill. He looked a wreck and did die a couple of weeks later at Oruro; his mother and sister subsequently came to Chojñacota, trying to claim indemnity under the Employees' Indemnification Law, that he had died in service.

We had a succession of "queer birds" for teachers but I'll tell you about only two: we received an application from a teacher in La Paz, who had splendid recommendations and seemed well qualified; he was sent for and when he arrived he brought with him a wife and eight children! The salary was only *B*/150 a month (about \$50.00) and he drank, too! But I really meant to write about his wife, rather than the teacher—she was not yet twenty-eight, looked younger, had eight living children, five dead and had had three "mishaps"—figure it out, if you can. She was expecting the stork when the family came to Chojñacota and she died in childbirth, which was really tragic; being *gente decente*, the remains were taken in the truck, with the family, to La Paz for burial, for there is only a semi-weekly service by train. The teacher returned with the six youngest children, and the eldest, a girl of about twelve, undertook to be mother-house-keeper, and with kind neighbors, things would not have been so dreadfully bad, had the father not "taken to drink" worse than ever. Many an act of charity in which the "right hand did not know what the left hand doeth," kept those poor, worse than orphaned, kiddies from actual want and somewhat lessened their misery. At the end of the school year, the family went to La Paz.

The succeeding teacher was a real "gentleman of the old school," a young man, scholarly, interested in his work, and he accomplished wonders not only in the daily routine of teaching but in cleaning up the school and the yard and many a time have I seen him lead a pupil by the hand to the pump—I should say hydrant—and give him a vigorous "washing down"; and it was not very long until all the kiddies arrived at school with clean hands and shining faces and on time, too. He organized a "boy-scout" unit; his young sister (he was supporting his mother and this sister) taught the girls sewing and other handwork; quite often the whole school was taken out for "*paseos*" (hikes) for nature

CHOJÑACOTA AMONG THE GLACIERS

study—we had an up-to-date, live school. Moreover, the teacher was an accomplished dancer and at least once a week he came down to the Administration to teach us Gringos and Gringos the tango and other “fancy” steps. Superfluous to add that he kept his job.

At the left of the boarding house and a little higher up was the doctor’s office, dwelling, dispensary and hospital; and I could tell you some rare and extraordinary stories of the series of doctors, but I think they would better be told and not written. Now, I presume you are wondering why there was such drinking—for the Irish storekeeper had to be “let out,” too, for excessive drinking—in a dry camp; but, my dear, the United States is not the only country where the “Eighteenth Amendment” is violated and bootlegging seems to be an art indigenous to all parts of the world. However, as with our school, we finally did get a splendid doctor, a loyal storekeeper and replaced all the “wet” incumbents with “drys.”

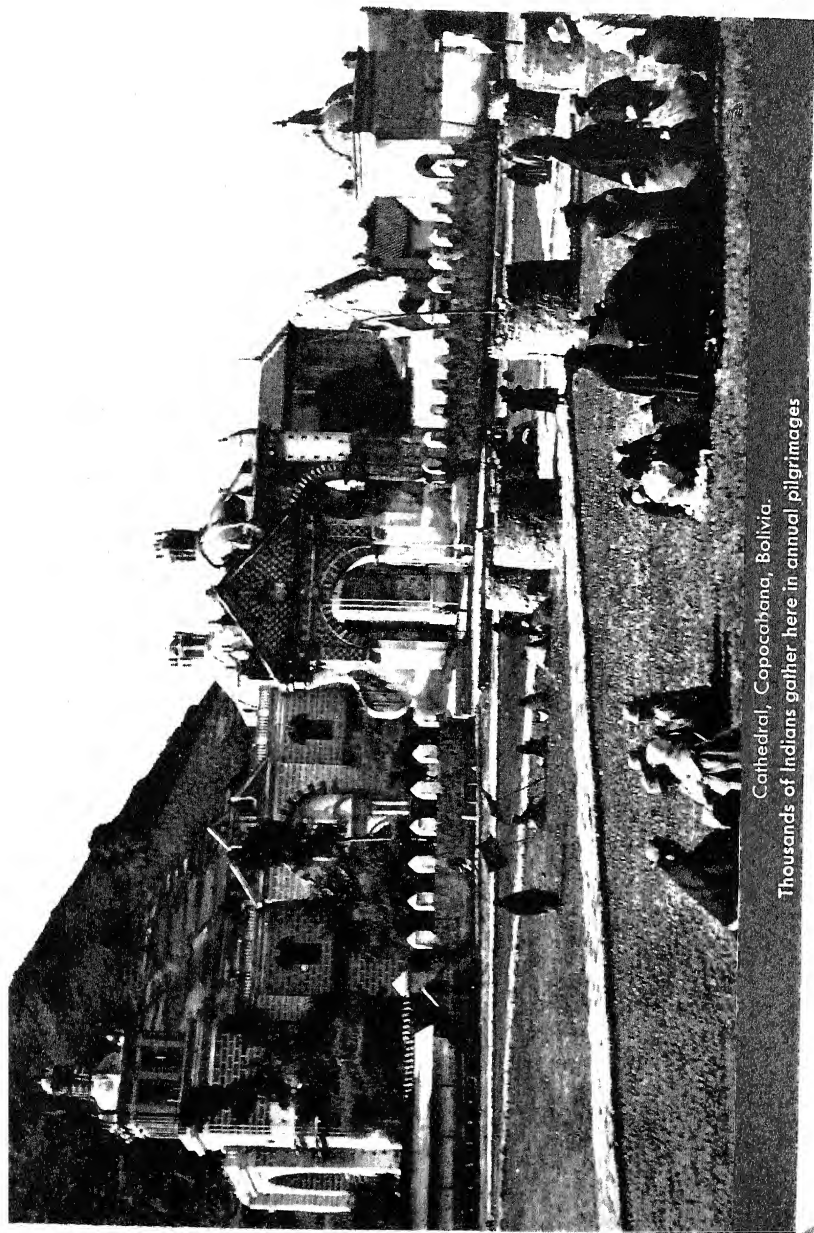
We were completely “sold” to the system of having the Administration group so far from the mine and mill camps; our quiet environs were a decided contrast from the almost continuous hubbub at Pulacayo and although I seem to have dwelt a great deal on the drinking, yet it was nearly all “private” or so-called “bottle” drinking and Chojñacota, on the whole, was almost a model camp.

This series of teachers, doctors, etc., reminds me of *my* troubles with a succession of servants. I was so fortunate in Pulacayo with my “paragon” Marcelina and while at the American Institute both at La Paz and Cochabamba the domestic machinery seemed to function almost automatically, so I expected no “servant problem” at Chojñacota. What a rude awakening! Julio, whom we inherited, a Bolivian, was an excellent cook, in fact, he had been “chef” on the Antofagasta-La Paz railway; his wife was supposed to keep the house clean and to do the laundering. The previous Manager was alone, his family living in La Paz for school advantages, but the young English millman took his meals at the Administration; so there were but the two to cook for. Julio’s “woman” was given the privilege of doing

HIGH SPOTS IN THE ANDES

the laundry for the office men, in spite of the fact that she was receiving extremely good wages from the Company. Julio received twice as much salary as I have ever paid any servant before or since yet the house was never swept unless I especially demanded it; the woman did make the bed but never aired the bedding without a special request, she was too busy washing and ironing for others. Still, the meals were so excellent, so tasty and Julio seemed so anxious to please—and I had not completely forgotten how to do things around the house myself—that we overlooked a lot of the woman's shortcomings. But when I saw the first month's statement of our household expenses, even though the Company did pay all the expenses, I immediately asked for the keys of the *dispensa* (storeroom) and when Julio asked for a second can of butter (Golden State butter from California at B/3.65, about \$1.25 per pound), I wanted to know why he needed so much butter, for remember there were only the two of us to cook for. Then he "in a huff" went to the office and complained to Clarence that I was interfering with his cooking! Clarence came over to find out what it was all about and soothed Julio's ruffled feelings but it was the "beginning of the end"—when he had to account for everything he used, he lost interest in preparing good meals and, very shortly, he received a letter that his mother was ill and he asked for *permiso* to visit her. Almost invariably when a servant or laborer wants to quit work, he or she receives a letter that a father or mother or grandfather or someone is ill and he must go to the bedside as soon as possible.

It was approaching Christmas time and we knew that we were expected to entertain all the employees at dinner—"our" young Englishman had told me of all the *costumbres* (customs) that were counted upon from us and he was a jewel at helping me, too, in making out the list of invitations, for what with employees with wives and others with "housekeepers," a delicate situation might arise; the seating of the guests, according to "rank," required thought, but I brushed all this aside for the more important question, "Who was to cook the dinner?" We asked Julio if he would not



Cathedral, Copacabana, Bolivia.
Thousands of Indians gather here in annual pilgrimages



Road from Tarma to the Chancamayo Valley

CHOJÑACOTA AMONG THE GLACIERS

remain until after Christmas and he promised to do so, but when, on the following day, a whole case of eggs had been delivered to the kitchen during my absence on a muleback ride, and all the eggs had been used up, except six dozen, twenty-four dozen eggs minus six dozen, or eighteen dozen eggs in a few hours and he could give no satisfactory explanation, I didn't care whether he stayed for Christmas or not, so on December 15th, Julio, his wife and two children left for La Paz to visit his sick mother and, as far as I know, they are still there! Believe it or not, with two well-trained servants, cook and maid, a laundress and, later, even a housekeeper, our household expenses were cut in half and never, never, even with "loads and loads" of company, did the monthly expense account equal that of extravagant Julio.

Julio was followed by Josefa, a full-blooded Aymara Indian, who could cook meat, potatoes and vegetables splendidly but said she knew nothing of *postres* (desserts). She was a "character," had lived all her life in Chojñacota, chewed coca incessantly (and one did not have to see the wad in her mouth to know it—it smelled to heaven), and she went on periodical sprees. Whenever she asked to go *arriba* (above), meaning to the plaza, I knew I would have to get supper, nor would she return until we sent the *sereno* after her. But she was a good old soul and helped me out many times when I was in a "tight pinch" (many visitors and a poor cook, or perhaps no cook at all).

Josefa seemed to be the "good angel" of the camp, the confidant not only of the Indians who lived in the camp but of those who brought eggs, chickens, vegetables, etc. Many an Indian has she lodged in her quarters on a stormy night, and the Cholas confided in her as well; I knew of one Chola, the "woman" of one of the office men, who "refuged" with her after every "scratching and hair-pulling" bout with her "man," and after the last scrap, she hid in Josefa's room for two whole days. But after this last affair, the belligerent woman was sent out of camp, protesting so vigorously, however, at being sent out, that Clarence threatened to have her put in a sack and toted down the hill! Her man resigned and got a job at a neighboring mine, where their fights became

HIGH SPOTS IN THE ANDES

the scandal of the whole countryside; after one "ace" affair, he kicked her out permanently and subsequently, just a few days later, in fact, he married a *gente decente* La Paz girl.

Once when I returned from a walk to the second dam, I found a "swell-looking" lemon pie, meringue and all, on the kitchen table. Josefa had given me a nice surprise and ever after she made nearly all the desserts. But she was too old, past forty, which is considered ancient, quite senile, for a woman, to do all the cooking required though she continued to "help out" as long as we were in Chojñacota and she died a few months after we left, of alcoholism—*requiescat in pace!*

But here was a Christmas dinner to prepare for sixteen guests, eighteen people in all, and Josefa apparently knew only how to cook meat! When I was in the depths of despair, Abe San, the Japanese boarding house keeper, who had become aware of my dilemma, came to the house and told me not to worry about a single thing, that he would prepare the whole dinner of roast turkeys, cranberry sauce, mince pies an' everything. He not only made good but also brought down a Christmas tree all decorated, with a gift for every guest! And a staff of helpers in the kitchen! Was he a friend in need? Unanimous Ayes!

During all the time Josefa was in the kitchen, she had a succession of *chicos* (boys) to help; one would just about learn to wait on the table presentably when pronto, presto, another boy appeared in the dining room; I had two *chicos* to help me in the other part of the house but I soon gave it up—they were hopeless. Of course, if Clarence and I had been alone all the time, I would not have minded so much but we were continually having such a number of unexpected guests: people from neighboring mines, for Chojñacota was conveniently situated to "break" the long, tiresome trip from outlying mines to Eucaliptus. The Intendente, who lived at a neighboring mine, but was our Police Officer as well, spent a good deal of his time at Chojñacota. I note from my diary, that on January 16th, our Intendente, the Sub-prefecto of Luribay (Chojñacota is in the Province of Luribay), the Intendente of Luribay and four army officers

CHOJÑACOTA AMONG THE GLACIERS

"drop in" for a visit of four days. In fact, about all I record in my diary our first year in Chojñacota is "Power off," followed by names of guests, more often uninvited than invited, for dinner or for supper and quite often for several days.

On February 1st we received a telegram from our good friends, the Bells, of the American Institute at La Paz, that they were sending us a good cook—for I still have the propensity of letting my friends know when I am in distress—so we sent our chauffeur at once to Eucaliptus to meet the cook, but he was unable to locate her and then the telegraph lines were kept busy. It seems the cook arrived in Eucaliptus, there was no one to meet her, she had never traveled alone before, became frightened and took the next train right back to La Paz, hence we never saw Dolores Guzmán. And this shows up our telegraphic service; more than once our guests have arrived two or even three days before the telegram announcing their coming arrived.

Once Clarence sent down one of the most promising-looking of the women of the *cancha*, an ore sorter, whom he thought might do temporarily, or if she made good, might stay on as cook. I never dreamed a human being could be so stupid, so utterly stupid: Felicidad (what high-sounding names these servants do have!) not only knew nothing about cooking, she did not know how to build a fire, she did not even know what a frying pan was! I told her to warm up the sauerkraut for supper and she sent it in as soup—it was the first time I had ever heard of sauerkraut soup. We had company, too, but instead of being embarrassed, I started to praise it and all the others followed suit, lauding it to the skies! Felicidad could not wash nor iron, so I asked her if she could mend and she replied, "*Si, si Señora.*" Then I gave her a basket of socks and stockings, with white, black and tan darning cotton, or rather wool, for we wore no cotton nor silk hose "among the glaciers"; when she returned the basket and I unrolled the socks and stockings to inspect her work, I found she had darned the black hose with white wool, the white ones with black, while the tan was used on all of them, but only where it would be sure

HIGH SPOTS IN THE ANDES

to show! I asked Clarence to send her back to the *cancha* and as she was the most promising, I did not care to try any of the others.

Mr. Maycumber, millman at a neighboring mine and our metallurgist at Santo Domingo, told me this, for he was one of the partakers of the sauerkraut soup: Mrs. Maycumber was "breaking in" a new servant at Chuquicamata and one morning she was making a lemon pie and, with the custard on the stove, remembered something she needed at once at the store, which was close by, so she told Hortensia to watch the custard and she hurried off. The custard began to burn, then to smoke, the kitchen became full of smoke and then Mr. Maycumber entered the kitchen and asked what was burning. Hortensia pointed to the custard. Mr. Maycumber asked, "Why don't you take it off?" and she answered, "The señora only told me to watch it, she did not tell me to take it off!"

On Monday, March 8th, Guadalupe arrived from Oruro, 150 kilometers (ninety miles) from Chojñacota, and she had walked every step of the way! She had heard we wanted a cook, did not have any money and knew no other way to come than to walk. I insisted that she rest a day, then she took over the kitchen. She was a marvelous cook and subsequently, by a queer turn of events, became the maid and she was a marvelous maid, too! She is the only maid I ever had who, once a week, took all the pictures off the walls and dusted the backs—she had had several years' service with a Gringo family in Oruro. She had but one failing, she just would have babies!

There are a few more to add to the list but I have just suddenly remembered that when we were in Pulacayo and I used to hear the women complaining about their servants, I inwardly vowed that I would never, never discuss my servants here and I have "outwardly" broken that vow all to smithereens. Forgive me if I have bored you.

CHAPTER VII

MORE ABOUT CHOJÑACOTA

Santo Domingo Mine, February 16, 1932.

MY DEAR IVA:

It was such a surprise to receive a prompt reply from such a notorious procrastinator as you are known to be, that I could scarcely believe my own eyes when I saw your handwriting on the air-mail envelope—and what a bristling array of question marks!

And the discussion of servants really did not bore you! My dear, no one realizes more than I do the contrast between my "servant-problem" life in South America and the "nightmarish" drudgery on the farm; I hope I am correspondingly appreciative of the leisure which servants do give us.

Yes, I was the only "white" woman in camp from the middle of October until the middle of April the following year. There were the women of the office men, who were nationals, but whether they classified themselves as Cholas or *gente decente*, I don't know. Our bookkeeper had a Chilean housekeeper and she was included in the list of Christmas guests as Mr. X.'s wife but about a month or so later Mr. X. took his housekeeper out and sent her away on the *same* train that brought his Argentina wife from Tucumán; scarcely a month later Mrs. X. carried on an affair so openly with our camp doctor that her husband took her away and neither ever returned. An American, who had been auditor at Pulacayo, took the bookkeeper's place. Thus one becomes aware that scandals as well as bootlegging are not confined to one particular part of the world.

Why were the tin concentrates sent to England? They were sent there to be smelted because England does it more cheaply—"whoever is first on the ground and gives the low-

HIGH SPOTS IN THE ANDES

est price" gets the business, as it always has been and, I presume, always will be. England has the oldest tin mines in the world for tin was first discovered there by the Romans in the dim past and the famous Cornwall tin mines, now 1800 feet below sea level, have been worked almost continuously since the Roman Invasion. Naturally, she had the first smelter; other smelters have competed: Patiño, the Bolivian "tin king," built a smelter at Arica, and during the Great War one or two were built in the United States, but Patiño abandoned his smelter at Arica when England restored her original prices and I presume ours at home were abandoned at the same time.

Speaking of Patiño, the tin king, reminds me of a sketch I recently read in the Sunday Magazine Section of the *New York Times*. I do not remember the writer's name but she said Patino (did not even spell his name correctly) was born in Cochabamba, a small Indian village, on the *altiplano*! Shades of Jupiter! I feared I was hitting Cochabamba rather hard when I mentioned its lack of cleanliness but to cite the third city of Bolivia, a city noted for its salubrious climate, as an Indian village, and on the high plateau! If only the travelers in South America would try to be a little more accurate, their articles and books would cease to be a source of amusement and misinformation and we Gringos would not feel it necessary to apologize for our countrymen.

How could we dance at such an high altitude? The nationals, born in the high altitude, are breathing their native air and they seemed to be able to dance steadily without tiring but we Gringos rarely danced a record through; usually a half-record on the phonograph was my limit and the rest intervals between dances were very long, nor did we ever dance the whole night through; from seven to ten was generally "called a night." These nationals, however, who can dance at 15,000 or more feet, these "high-born" dancers cannot live at sea level; we have known of several, in attempting to live on the coast, who developed tuberculosis and had to be sent higher, where they soon became well again.

I like to have you be a "question box" and if I forget

MORE ABOUT CHOJÑACOTA

to answer any of your questions, don't hesitate to repeat.

Continuing now from my diary: on January 6th Clarence had the toothache so badly that we decided to go at once to Araca, where we knew there was a German itinerant dentist; our car was at Eucaliptus, so we decided to walk to Pampa Mina and hail the first *camion* that came along and we were fortunate in having one overtake us before we had gone a half kilometer beyond Pampa Mina. Araca is about twenty-five miles from Chojñacota, these twenty-five miles being a continuation of the marvelous mountain road from Caxata, only more so; in spite of Clarence's sufferings, the grandeur and the "muchness" of those many majestic mountain peaks, the glistening, bluish-white glaciers, some of which I could almost touch, for I sat on the outside from the driver's seat to keep the cold air away from Clarence's aching tooth; the amethyst blue lakes far below, the countless switchbacks and many hairpin curves, the unobstructed view of Illimani, into which we seemed to be directly speeding—all these made an indelible impression and this impression was but enhanced with every subsequent trip, for we had the great pleasure of traveling over this road many, many times and under wholly auspicious conditions. There are three summits to be crossed, the highest one being nearest to Chojñacota, just beyond Laramcota and is a little bit more than 17,000 feet above the level of the sea. Almost everybody feels a little touch of *puna* or *orocho* in crossing this Laramcota summit and I invariably had a ringing in my ears, but fortunately the uncomfortable feeling does not last long. About two-thirds of the way to Araca there is a series of such sharp curves, twistings and windings, that a great many folks feel "queer at the stomach" and more than one of our guests has had to precipitately leave the car—and his breakfast. This road claims the distinction of being the highest automobile road in the world.

We had left Pampa Mina at two and arrived in Araca at five-thirty, only to find that the dentist was up at the mine, 1500 feet still higher. The Manager at Araca was very sympathetic and at once telephoned the dentist, who said, "Send him right up," so a mule was saddled and Clarence

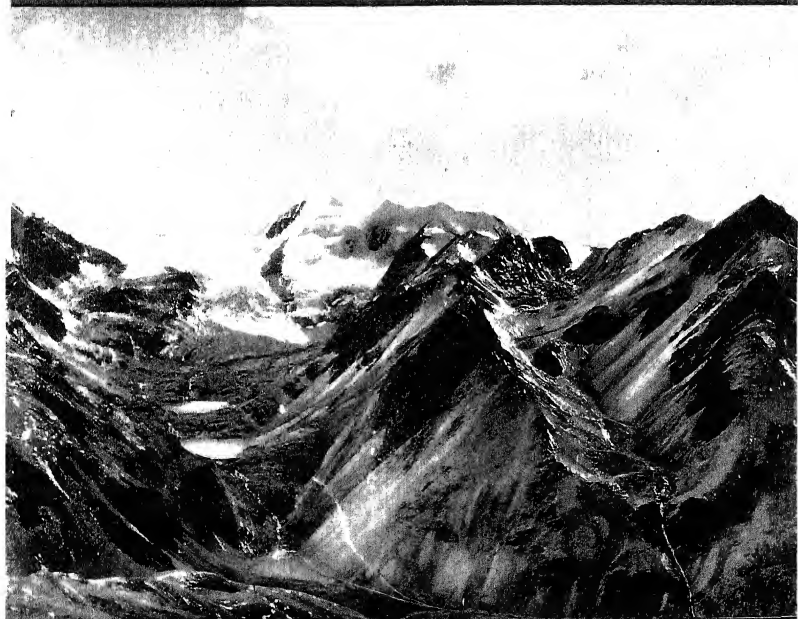
HIGH SPOTS IN THE ANDES

continued his journey without me, for it would be dark before he could return and the Manager considered it imprudent for us to stay all night at the mine, especially for Clarence to remain at such an excessive altitude after the shock of a tooth extraction; as for me, I was given no choice in the matter but was conducted to the guest house, where the Manager introduced me to Miss Krause, the housekeeper. I knew, before I heard her name, that she was German and she evidently became aware simultaneously from my physiognomy that I, too, was German, and almost in concert we immediately began, "Sprechen sie Deutsch?" and have kept it up off and on, mostly "on," ever since.

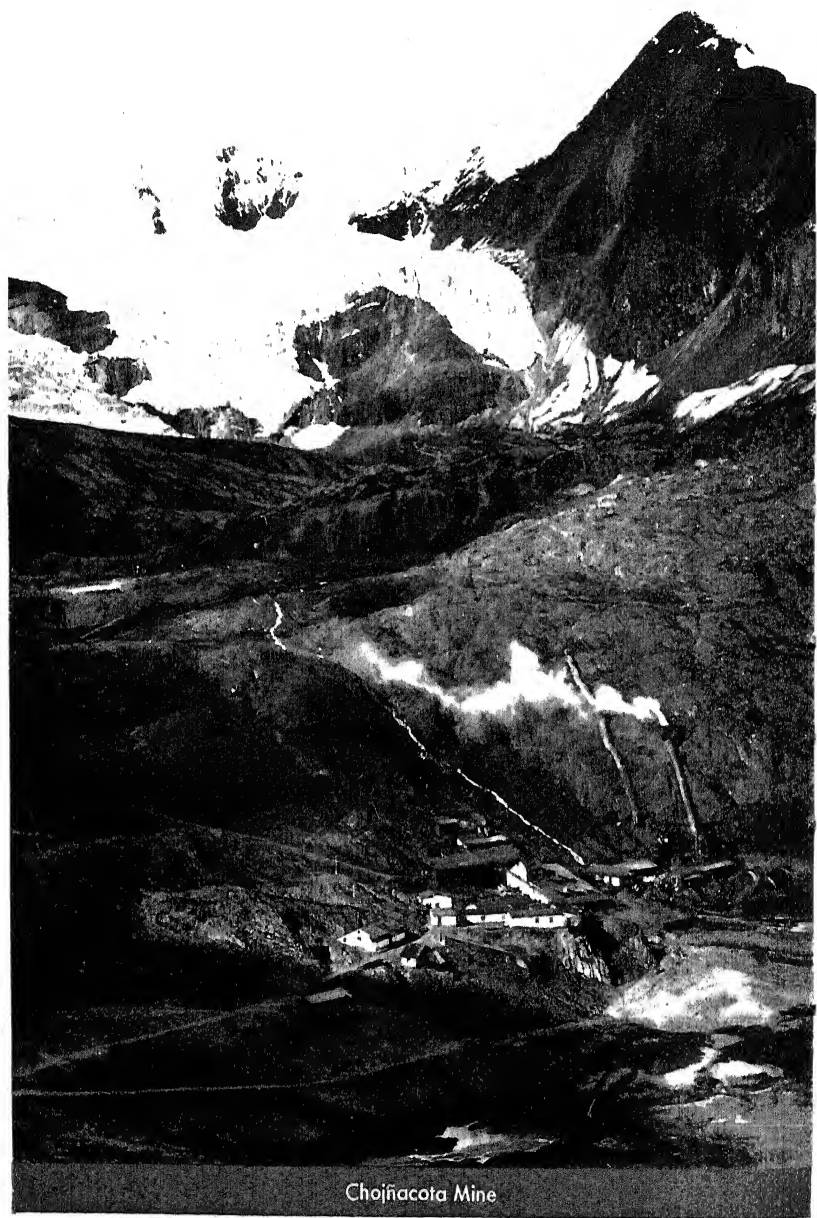
You know, of course, that my parents were both born in Germany, that all of us children are American born but that we always spoke German, at least with mother, in our home, that I taught German for eleven years, but you do not know that on one occasion I had forgotten every bit of German I ever knew! Once in Uyuni, on a trip down from Pulacayo, Clarence wanted to register a letter and we both forgot the Spanish for "register." There was a group of men speaking German in the lobby of the post office so Clarence suggested that I go ask one of these men to tell us the word. I went up to them with all the assurance of the infallibility of a teacher about to conduct a class and when I began to speak—can you believe it?—I could not even remember the word for "please" in German! I did manage to convey to them, however, in Spanish, what we wanted to know but that paralyzing incident will never be obliterated from my mind; I was actually afraid that I had forgotten all my German. Clarence thought it a huge joke but I was so seriously alarmed that I "dug up" some German books and determined I would read some German every day and found that I still could read as fluently as ever—nor do I think it possible that I could ever forget the spoken word, when hearing others speak it; my lack of articulation was entirely due to lack of practice. I had had no opportunity to speak German since leaving the farm. Clarence's folks are originally English, came over in the *Mayflower*—such a multitude of direct descendants there



Crossing the Pass on the Road to Viloca
(highest auto road pass in the world)



Quimse Cruz Range, Chojñacota



Chojñacota Mine

MORE ABOUT CHOJÑACOTA

are from those one hundred and odd souls who sailed from Plymouth in 1620! And Clarence has not learned a word of German, although he has been "exposed" so continuously—he is immune to any language (although he "gets by" with Spanish)—and there were no German-speaking people in Pulacayo, hence I embraced the opportunity to "sprechen" with Fräulein Krause and almost embraced her, too, in my delight.

The time flew so fast that I could scarcely believe it was eight o'clock when poor Clarence, still holding his jaw, returned; we induced him to eat a little soup and he needed no persuading to go to bed. His face was so badly swollen that the dentist had not given him any anæsthetic; he had pulled and pulled, broke off a piece and pulled some more; Clarence almost "went out" but finally pulled himself together and was able to ride the mule down the hill. It was the first tooth he ever had pulled and he is, therefore, likely to always remember the painful experience. High altitude is blamed for many things and its being "hard on the teeth" heads the list.

The Manager at the Araca mine was a German and nearly all his staff were German. We have found that an English Manager will have his staff English, a Dutch Manager will surround himself with his countrymen, the Frenchman will have "Frenchies" almost exclusively, but not so with an American Manager—he employs all nationalities, and if his staff is largely American, it is merely a "happen so" and not deliberately intentional. We were up early for breakfast the following morning and everybody at the table, except Clarence, spoke German. With the *Aufwiedersehen* to Fräulein Krause, I asked her to visit us at Chojñacota, emphasizing my eagerness to practice my German, and in a short time she came to visit, later to stay, and has been with us "off and on" ever since; she is with us now at Santo Domingo—"on" again.

That early trip back to Chojñacota in the truck, Clarence feeling better, a "heaven born" day with the sun shining on those majestic mountain peaks, making them stand out as gigantic, hoary-headed sentinels over the glorious panorama

HIGH SPOTS IN THE ANDES

spread out around them—ah, but I must not rave forever over those magnificent mountains, though I am still inclined to do so, even after several years' absence.

"Our" Carnaval at Chojñacota began on Sunday, February 14th, and lasted but three days. It was similar to the one at Pulacayo but on a smaller scale. The procession of men, women and children, dressed in their brightest best, was headed by three bulls, which were led by men, each as gayly garbed with serpentine, bright ribbons and artificial flowers as the bulls themselves, and the six of them, bulls and men, "stepped out," proudly aware they were the cynosure of all eyes. This procession as it wound its way down that serpentine trail, was a pretty sight; then the parade of millmen, mechanics, etc., met the mine procession on the road that comes from the plaza and the two, each with its bands of lively music, with many *vivas*, with bushels of confetti and serpentine, made their collective way to the Administration House for "review" and also for *pisco*, for this first year happened to be the *pisco* year. Miss Krause was visiting us and we also had guests from La Paz. All helped serve the *pisco*, which looks like gin but has a lot more "kick"; after all had had several rounds of drinks, Clarence and I with all our guests had to dance with the revelers, *cueca* and "ring around the rosy" and what not, after which most of the Indians knelt at my feet or Clarence's and kissed our hands! This *was* different from the previous carnivals in which we had participated. With the banners of the several sections gayly flying in the breeze, the artificial wreaths a little awry, but the bands still blaring forth with might and main and but an occasional lurch among the marchers, they paraded on up to the plaza, where they "whooped 'er up" all day and most of the night; but happily we were far enough away not to be disturbed. At four in the morning a Cholo died of alcoholism and another died before the festivities ended, so Clarence vowed, "Never again" would he allow *pisco* to be served at the Company's expense, as long as he was Manager; the Bolivian Law allows alcohol to be sold during fiestas throughout the country but the two following years that we were in Chojñacota

MORE ABOUT CHOJÑACOTA

there was no free "booze." Monday morning there was another big procession up to the mine, where the bulls were sacrificed, as I wrote you in a previous letter. Tuesday the activities had subsided appreciably and on Wednesday a goodly number of the men reported for work.

Our first Sunday in Chojñacota, Clarence and I rode to the glacier and this was my first lesson in "sticking on" the mule no matter how big the boulders nor how steep a declivity; it wasn't more than a half-hour's ride but we stayed right on those mules over hummocks, into potholes and whatever else glaciers leave in their wake, and we rode right up to the snout of the glacier itself, where Clarence put a rock on the reins of our mules to keep them from straying, and we climbed up on the most unusual, loveliest, most awe-inspiring "backyard" it was ever my privilege to "own"—and in our pride in "showing off" this glacier to our many guests, we really began to feel the glacier was ours. We peered down into deep, glistening, beautiful blue crevasses; we leaned against high pinnacles of lighter-blue ice (posing for photographs) and we slid, rather than walked, over huge fields of snow and ice; all this I did countless times, for Clarence was too busy to accompany every visitor, and almost without exception every visitor to Chojñacota wanted the thrill of climbing the glacier, which, to nearly all of them, was the first glacier he or she had had the opportunity to become acquainted with, and the acquaintance was made with so little effort, no discomfort and with no previous "endurance tests," which I had to undergo before viewing my first glacier on Mt. Rainier. The only stipulation which Clarence exacted was that no one ever attempt to go to, or rather up on, the glacier alone; he also requested that women, no matter how many in the party, should not attempt to climb the glacier without at least one man to accompany them.

The glacier was never the same twice in succession, even though but a day had elapsed since the previous visit: the crevasses had widened or disappeared to give place to entirely new crevasses or there was more ice exposed, or more snow-

HIGH SPOTS IN THE ANDES

drifts or two or more factors or all combined to change the topography.

One time the Bells and two other friends of the American Institute, Clarence and I "rode and tied," for we had only four mules; thus when there were more than four in a party, and many times there were ten or twelve, then four would ride a short distance, dismount and four others ride a while, and so on. However, when we went just to the snout of the glacier, on such a short trip, the men in the party usually preferred to walk. Sometimes with but five or six persons for some extended excursion, Clarence would borrow extra mules from our good neighbors. But with the Bells this time, six of us in all, we thought four mules would suffice, for we knew that after reaching the place most accessible to climb up on the snow fields, the mules would be of no further use. So the six of us "rode and tied," but if I remember correctly the three women did not do much "tying." We rode far beyond the mine *cancha*, up and up over seemingly impossible places, and finally leaving our mules securely fastened, we laboriously climbed over huge boulders, usually sliding and slipping down the other sides, toiling on until eventually we began climbing the real top of the glacier, arriving on those vast snow fields, perhaps hundreds of feet of packed snow, nobody knows how deep. It was a strenuous climb but well worth the exertion and grinding toil; what a vast expanse of glittering whiteness surrounded us! And we were at the "last" foot of Chojñacota peak—I hazard a guess that four or five more hours of steady climbing would have brought us to the very top; but to scale this peak, however, one should get a much earlier start than we did; as it was, we barely reached home before it "nighted" as it is so graphically expressed down here.

The glacier extends five or six miles up in the mountains and one can go all the way over this glacier to the Caracoles mine; before our time, a party of four did make the trip, but two were snowblinded, one fell in a crevasse and was extricated with back-breaking, almost superhuman effort, while the fourth became so exhausted he could scarcely crawl, let alone walk, and all four said, "Never again!" Our Mine

MORE ABOUT CHOJÑACOTA

Superintendent, who considered himself an expert mountain climber and who knew glaciers, for he had climbed mountains and glaciers in Switzerland, and had been on and across (laterally) the Chojñacota Glacier many, many times, started across alone, something he had never done before—nor will do again—and he stepped into a crevasse, covered with snow, but fortunately there was an ice bridge, which he straddled in his fall. The bridge was about five feet below the surface and, as he said, he was some scared Dutchman. It was an extremely deep crevasse and very wide at the top; would the bridge hold, while he cautiously turned himself and propelled himself toward the icy wall? It was bitterly cold and he knew he must work fast, albeit with great care, lest he became too numb to move at all and he knew he could expect no help, for no one was aware that he was on the glacier. I cannot remember all the details—it was a harrowing experience, even though he related it in his usual phlegmatic manner, but I think he used his pocket knife to cut steps in the ice and by dint of much struggling, breathless and with bleeding hands, he finally flung himself on the solid ice. He carefully tapped every step of the remainder of the way across.

Our second never-to-be-forgotten trip (our first, you remember was just to the snout of the glacier, when I almost had heart failure because I was expected to stick on my mule over hummocks, through potholes and what not) was to Monte Blanco. We left home early one morning "*en mula*" (muleback) down to Pampa Mina, turned to the left on a narrow trail opposite the automobile road which was on the other side of "Chojñacota creek" and continued on this trail around the mountain until we came to a *quebrada* at whose summit Monte Blanco is situated. We did not go to the summit but to Monte Blanco mine, where we arrived merely a few minutes before *almuerzo* (luncheon); that climb up to the Monte Blanco mine is far more strenuous than the one from Pampa Mina to Chojñacota; the trail around the mountain side to a neophyte seemed "the last word" as an impassable trail. I remember Miss McCray, a teacher from La Paz, saying, after we had negotiated one extremely sharp

HIGH SPOTS IN THE ANDES

curve—it was her first trip, my sixth—"Well, I never knew before that a mule could walk on nothing." After crossing the stream in the *quebrada*, we toiled, or rather the mules toiled up and up an unbelievably steep trail, a large part of which consists of steps cut in the rock; it was necessary to allow the mules to rest often, for their panting sides indicated what effort is required of them to make this ascent. Finally we reached the camp. It is not much higher than Chojñacota but what a difference in temperature! The wind sweeps down from snowy Monte Blanco unrestrained by any benches or ledges, such as we have at Chojñacota, which protect our camp from the wind that blows similarly from "our" peak; then, too, the Monte Blanco camp is so situated that the sun has a difficult time finding his way into it; he rarely "calls" before ten in the morning and he makes his calls very brief, seldom staying until three—he simply can't get around that vast, precipitous cliff at whose foot (or feet?) the camp is located. In the many times we were at Monte Blanco, I cannot recall a time that it did not snow. Old Sol made himself more at home in Chojñacota and so directly did he send down his beneficent rays that it seemed as warm at nine in the morning as at two in the afternoon; and while we had plenty of snow—my diary notes one foot of snow on August 14th, but that depth is quite unusual—yet we never had the cutting wind when it was snowing or otherwise.

However, the warm hospitality of the Monte Blanco folks more than compensated for the chilliness outside; whether expected or not, we and as many guests as we brought with us were always cordially welcomed and, *muy pronto*, a good, hot luncheon appeared, it seemed almost as if by magic. About two we would start home the short way: first, under the mill "dump-tramway" and under which the mules always reluctantly were persuaded to go, then in fifteen or twenty minutes more of excessively steep ascent there lies before your delighted gaze the gem of all beautiful lakes, the lovely, incomparable Lake Huayatani, more than five hundred feet deep, in a shell-like formed basin of solid rock. Huayatani is Aymara for "Resting place of geese." When

MORE ABOUT CHOJÑACOTA

Mr. Millikan, the noted physicist, was experimenting on this lake to prove something about cosmic rays, he lowered a contrivance five hundred feet and did not touch bottom; the banks are so steep, I wonder how Mr. Millikan ever got a boat down into the lake or how the people ever got into the boat and then out again. Monte Blanco Glacier has no visible terminal moraine, for its snout apparently has edged its way to the very water's edge and being fed by this glacier, the water of the lake must consequently be ice-cold. This deepest blue, indigo blue, midnight blue or whatever *can* portray this *blue* lake, perched more than 16,000 feet above sea level, cradled deep in the lap of a grand, old mountain, and with a stupendous, marvelously beautiful, glistening white glacier seemingly about to slip headlong into it, and the lofty, snow-capped peaks, silhouetted against a cobalt-blue sky, towering high above in the background, oh, my dear, to "pen-picture" this lake with its magnificent setting is beyond me—it simply begs description. If it were in the States or in Europe, thousands and thousands of tourists would visit it every year; its inaccessibility would be overcome by Yankee ingenuity or European mastership.

This second part of the "round trip" to Monte Blanco affords a breath-taking, prolonged view of this marvelous lake, for we ride at least two miles along its edge, after which we constantly turn back for just another look until it is completely lost to view. We proceed over a rough, rocky, ascending trail until we reach the top of the ridge and—the breath-takenly beautiful panorama of the entire Chojñacota valley is spread out before your "long ago ceased to be astonished" eyes. The first time I came with Clarence, he started almost at once to ride down on the other side, giving me but a few minutes for exclamations of rapture, and I, feeling that no mule could possibly keep its feet on that "straight down" trail and too badly scared out of my wits to even remember a prayer, clung desperately to the saddle and kept my eyes glued to the cliff-side. The time the Bells, Miss McCray, Clarence and I made the trip, we all dismounted to "tread on this enchanted ground"; when Clarence prepared to remount Miss McCray said, "Surely, we are

HIGH SPOTS IN THE ANDES

not going to *ride* down that trail!" And I replied, "Clarence takes it for granted that his wife must go wherever he goes," and then she "spoke up" and asserted, "But I am not married and I am *not* going to ride!" Mrs. Bell is such a "game sport" that even if she were "scared stiff," she would mount and follow and *smile*. However, in deference to Miss McCray, we all walked down, each one leading his mule; about half way down there is a stretch of five hundred feet or so of loose shale, where one always had to dismount anyway and while you and the mule following you would slip and slide in those loose, sliding rocks, yet it was not particularly dangerous and after you had come over the trail a few times, you rather enjoyed the sensation, like "shooting the chutes." After the loose shale, you were generally tired and quite ready to mount, even though the trail seemed precarious.

One other time, when coming home from Monte Blanco, we had the once-in-a-lifetime thrill of seeing a huge avalanche of snow and ice come hurtling down from the left fork of our glacier—tons and tons of feathery snow and immense blocks of heavy, blue ice, making a terrific noise as if the earth itself were being torn asunder. Before our time, a workman was climbing the about 2000 feet high, steep mountain side that separated us from Monte Blanco, and as he neared the top, the wind blew off his hat; in leaning forward to catch his hat, he lost his footing, followed the hat, and his remains were unrecognizable. We had heard of this casualty so many times that the wind could have taken our hats, our boots, all our possessions, without our making the slightest effort to reclaim them. Whenever the Bells visited us, they always made a second round trip to Monte Blanco—just the two of them; photography is Mr. Bell's hobby and he asserts that Chojñacota and its environs have the most "camera fodder" of any place he has ever seen.

Any visitors of ours who could stay long enough were given three "treats": first to the glacier, second, the round trip to Monte Blanco, and third, the trip to Araca, which I have already inadequately described. One time we took a whole Chandler-ful of guests to Araca, seven of us, and as



Mr. and Mrs. Woods on the Chojiñacota Glacier



Near Lake Huayatani Returning from Monte Blanco



Indian Woman Spinning as she Walks

MORE ABOUT CHOJÑACOTA

I remember, two of the seven left their breakfast at that hairpin-curved, wind-y place. Returning from Araca, we decided to go to Tanapaca, the "rest home" of the employees of the Araca mine; the new auto-road had recently been completed and we wound, spiral-like, down a mountain side, dropping, almost literally, from the high, barren rocks into the lap of almost luxuriant vegetation, which appeared as a Garden of Paradise to our now-accustomed-to-snow-and-glacier eyes; this *finca* (farm) furnishes fruit and vegetables for the camp, all the feed for the mules and was also the bakery for the mine, as the bread rose better at the lower altitude. We had our picnic lunch here, well supplemented with fresh milk, apples, peaches, radishes, lettuce and other salad "makings" from the farm. From a lovely garden fragrant with roses, lilies, verbena-geraniums and many, many other flowers, we had an unobstructed view of grand, old Illimani; no wonder we stayed too long and it had already "nighted" quite a bit before we reached the highest summit on our return. Our chauffeur told us that from this summit we could now see the Big Dipper and the Southern Cross, both at the same time, so we all piled out of the cozy, warm car into the deep snow to gaze upon this phenomenon, but not for long; we were glad to crawl back into warm lap robes and blankets, and we knew we had a two-kilometer muleback ride ahead of us—this was June 6th, pretty well along in winter—and we knew our fingers and toes might be "nipped" before we reached our ever-comfortable *sala*.

Another time, on a Sunday, we picnicked part way down on this "hill" that leads to Tanapaca and watched the Indians preparing their *chuño*: the potatoes are spread out on the ground and left there during the night to freeze; if they are making *tunta* or white *chuño*, the following morning, before the sun is up, the potatoes are covered with straw, but if it is to be the common or black *chuño*, the potatoes remain uncovered. In either case, the men, women and children tramp, tramp, tramp on the potatoes with their bare feet, squeezing out all the juice possible; the potatoes are left again to freeze and if to be the white variety, covered

HIGH SPOTS IN THE ANDES

with straw again before sun-up. This process is repeated four or five times, until all the moisture is extracted, then the potatoes are thoroughly dried. The white *tunta*, as I understand it, is first put in water, just enough to cover, for several days until "cured" and is then dried. Dried in this manner, the potatoes will keep for years and *chuño* is the main staple of the Indian's diet.

Did you know that Bolivia is the birthplace of the potato? About two years ago there was a Commission sent down to Bolivia, I presume from the United States Agricultural Department, which reported a long list of the varieties of potatoes grown here, but everyone I have asked, either Bolivian or American, if he knew how many kinds of potatoes are grown in Bolivia, invariably gave the answer, "*Tantos*" (very many), but no one knew definitely the exact number. But the Chilean wife of our Peruvian engineer has given me a list of forty-one varieties, each one of which she knows. She tells me that only the *papa-pajsi*, the *papa-lacaysalla*, the *papa-jankainnilla*, the *papa-runas* and the *papa-cati* can be used for the *tunta*, while the black, or common, *chuño* is made only of the *papa-amarga* and the *papa-jaruchi*; there is a *papa-milli* which gives three crops a year but does not keep well and there is a *papa-jamachipecque*, which is raised especially as a children's food, for babies, and which, when cooked, looks exactly like starch. I shall not bore you with the complete list—you will have inferred that *papa* is Spanish for potato and the second name is either Quechua or Aymara. Every American, or other foreigner as well, at some time or other, remarks about how "good" the potatoes are, and they are very good, but when it comes to size, I have never seen a South American potato that can compare to the "Burbank" or "Idaho gem." One of Mr. Othick's girls, born in Bolivia, was telling me yesterday of a "potato fair" held in La Paz a year or so ago, at which there were counters and counters filled with many varieties of potatoes, and one variety was so large that each one weighed a whole pound! (Since I started this symposium on potatoes, I must add that fifteen minutes ago I received a photograph of the potato fair

MORE ABOUT CHOJÑACOTA

at La Paz; each variety was numbered and there were 89 varieties!)

We went to La Paz quite often, by auto in the dry season and by train when the road became impassable. One time, July 30th, "in the dead of winter," we started for La Paz in our old Chandler. We started late as it was half past two when we left Pampa Mina and took but three small sandwiches to eat, as we expected to arrive in La Paz in time for dinner. About eighteen miles from La Paz, we had a "break-down" and almost immediately thereafter it "nighted," until the night was as black as a stack of black cats and we had no lights, not a flash-light, not even a match! The *chofer* did every possible thing he could think of to make the car go but she obstinately refused to budge; he tinkered and tinkered in the darkness and finally the car moved ever so little and the *chofer*, who seemed to be able to "smell" the road, cautiously bumped us along for a few yards, when the engine gave a final gasp and was "dead" "for keeps."

The Chandler had an old-fashioned top, with many rips and tears, and most of the isinglass was broken. That bitterly cold wind of the high plateau swept all around us, from all directions, above us and beneath us and forced its way into every gap and rent, even though we tried desperately hard to better matters by stuffing every available hole with anything we could gropingly find in the car. The three tiny sandwiches, divided among three grown people, could not assuage the pangs of hunger, but rather merely whetted our appetites. In this Stygian blackness, the *chofer* and Clarence managed to move the car to one side of the road and then the *chofer* walked back a kilometer or so to see if he could get help but without success, he could not even get a candle; then he went forward a kilometer or two, also to no avail; finally we made up our minds to make the best of it, try to get a little sleep and the morrow would surely bring a solution.

Unfortunately we had but one small lap robe but, wrapping this around the two of us, Clarence and I huddled together in the back seat, the *chofer* slouched down in the

HIGH SPOTS IN THE ANDES

front seat and we tried to get "forty winks" and we may have dozed a bit, but if you have ever tried to sleep when you were cold and hungry, cramped into quarters not meant for sleeping, yet afraid to move, for fear a new position will be still colder, and all the time hearing the wind howling hideously, relentlessly trying to tear away what little protection the car afforded, then you can understand how interminable that night seemed. But, like Lincoln's favorite maxim, "This, too, will pass," so, too, this night passed and never before in all my life was the "first gray dawning" more appreciatively received. Haven't you noticed many times how everything takes on a more cheerful aspect as soon as a glimmer of light appears?

As soon as he could see at all, the *chofer* hurried to the nearest *choza* (Indian hut) to secure assistance. Clarence and I descended stiffly from the car, stretched our cramped limbs, walked uncertainly but finally more vigorously, until we were pretty well warmed up by the time the *chofer* returned with ten big, husky Indians. The car was pushed and pulled a half kilometer or so to a small eminence, from whence it was hoped by starting on its own momentum, the something or other would spark and the car would keep on going, but it went only as far as gravity took it; repeated efforts, propelling the car to other little hills, proved futile. There was nothing to do but wait for a passing car, and sometimes there would not be a car pass over this road for days at a time—a pleasing prospect, for this road, like all roads in Bolivia, excepting those built by mining companies from mine to the nearest railroad station, is not conducive to "joy riding" and only those on business bent travel over such roads. In the dry season the road from Eucaliptus to La Paz is "not so bad," especially if the *chofer* is familiar with the road, knows all the bumps and the detours to avoid the worst ones.

However about nine o'clock a Ford came along and the owner, learning our predicament, turned around and, taking Clarence and me with him, drove to "Alto," where we hailed a street car and I went directly to the American Institute while Clarence made arrangements for a truck to

MORE ABOUT CHOJÑACOTA

bring in our *chofer* and car. We shall always be grateful to this good Samaritan, who brought us almost to La Paz, and the mere remembrance of how the "Direktora" at the Institute tucked me into bed, brought me such good things to eat and then saw to it that I had three hours of complete rest and sleep, is an indelible "waymark" of loving gratitude. It took three days to get the carburetor fixed and whatever other "innards" needed fixing, but I never yet have been impatient to leave La Paz. On the fourth morning we left La Paz at nine in the morning and arrived at Chojñacota at three in the afternoon, but I vowed I would never again take a long trip in that old car nor ever leave Chojñacota again without plenty of wraps and plenty to eat; not so very long afterwards, the Company sent us a beautiful Cadillac, a seven-passenger car, and I at once furnished it with two heavy blankets, which belonged exclusively to that car and the carpenter made an ingenious "feed box" which could be filled on short notice.

Another trip I must tell you about—I think I mentioned it in a previous letter—was the two weeks' vacation Clarence and I spent at Cochabamba. Clarence had heard me talk so much of Miss Danskin and of the lovely garden that he was anticipating meeting her and curious to see the garden and he was not disappointed in either. Whatever I may have omitted in the Cochabamba letter, I can add now: we took Clarence to the museum, nicely housed in an attractive building and the variety of stuffed and mounted birds from the Cochabamba vicinity alone was surprising and the arrangement of the birds was pleasing; but the snakes and large animals! I especially remember a huge snake with bumps where they shouldn't be and corresponding hollows out of place, and a jaguar, decidedly anæmic in his middle but unduly corpulent at both ends! These distorted snakes and animals looked as if they had been instantaneously petrified by some cataclysm, which surprised them in convulsions of their own. In the patio there were a few cages on low counters, containing wild animals alive and in one cage there was a handsome, restless, half-grown jaguar, which attracted much attention; we noted how wide apart were the bars of

HIGH SPOTS IN THE ANDES

its cage and we were horrified but not surprised to read in the papers shortly after our return to the mine that a little girl had come too close to the bars, and the jaguar struck out a paw and so cruelly ripped the child's body that she lived but a few hours after the tragedy. There was a large tame condor, about four feet high, about three feet long and which must have had a spread of wings of eight or nine feet; black feathers, white cross-bars on the wings, a white ruff at the base of his naked neck; an imposing-looking bird, who walks up inquisitively to every newcomer and insists upon being noticed, his every action shouts to high heaven, "Look at me, for I am the King of all birds."

We also "did" the markets: the municipal, a sanitary market somewhat resembling the San Agustin market in La Paz; the Indian market in the streets just beyond the municipal, and as much more interesting than the municipal market as the Indian market in La Paz excels the San Agustin. And the pottery market! I wonder why we, or most of us, find the Indian pottery so fascinating; if it weren't so bulky and so breakable, I'd have transported the major portion of what we saw to my own keeping; the prices are ridiculously cheap and I simply could not resist buying a two-gallon, graceful cookie-jar, with a tight fitting lid—I know the designer never intended it for that, as he perhaps has no idea what a cookie is, but as such, it appealed to me and I "personally conducted" that jar all the way to Chojñacota, where it rendered good service, but since the mine is now closed down I presume it is merely awaiting better prices for tin.

We arrived in Cochabamba on a Sunday evening and the following Sunday, Miss Danskin, Clarence and I went by train, about two hours' journey, to Cliza, an Indian village of pretentious size, whose Sunday market attracts all the residents in that valley within a radius of many miles, and it is a market well worth any man's while. It was a warm day and as we walked up from the station, we passed an immense stock market of cattle, such a lot, I wondered from whence they all came; even more sheep, some burros and quite a herd of fine-looking horses; the poultry exhibit wasn't anything to brag about but I'll "tell the world" that the dis-

MORE ABOUT CHOJÑACOTA

play of wool was! Snowy-white, whitish, not so white and then all gradations to pure black and in such quantities that I am sure there must have been a hundred bushel-baskets of fluffy, soft wool all ready to be carded or spun. Which reminds me to tell you that we fill our cushions here with wool instead of feathers, for feathers seem to be an "unknown quantity" in Bolivia or Peru, as you will find out if you stay all night at any hotel or even at some pretentious Bolivian or Peruvian home. Pillows stuffed with wool would be all right, if they weren't stuffed, "pressed down and running over," if they weren't so overstuffed that they become as hard as the proverbial brick. Fortunately, I have learned to sleep without a pillow but for those who just must have a pillow, I would suggest an air cushion—when deflated, it would occupy so little space and it certainly would add to one's comfort. Here in Santo Domingo we inherited feather pillows, which, with those I brought down with me, give us plenty to "go around." And another "remind": while at Pulacayo I bought two sheep skins and Marcelina cut the wool off, washed it, carded it and made it into the fluffiest, whitest yarn you ever saw; then I crocheted a sweater, which I wore in Pulacayo, in Chojñacota and even brought it to Santo Domingo; but it was too heavy for here, so I reluctantly gave it to Mrs. Bell on her first visit here and she, very likely, passed it on to some worthy indigent student, who may still be wearing it, for that sweater surely did wear "like iron."

There was almost as large a variety of yarn as of wool in this Cliza market; I remember that Miss Danskin bought enough for a sweater but I just couldn't think of a thing I needed to use either wool or yarn. One hundred and fifty feet beyond was the main market, a huge, roofed-in, shed-like affair, and we were making our way slowly toward it when, abruptly, we became the unwilling and astonished onlookers at a birthday party: we saw an Indian woman, presumably the midwife, pick up the newly-born infant, take it to the irrigation ditch, a few feet away, dip her hand in the water and give the baby its first bath. I am sure to all three of us, involuntarily, came the image of an up-to-date

HIGH SPOTS IN THE ANDES

maternity hospital in its spotlessness, the doctor robed in white and with rubber gloves, the nurse or nurses in stiffly-starched uniform, and the meticulous care bestowed on the minutest detail. In contrast, here on the roadside, but a few feet away from the smelly stock corrals, an Indian woman *dar á luz* (gave light, gave birth) to a mite of humanity with neither mother nor nurse in white, and the mother, perhaps, carried her few hours old baby that same day to her home, it might have been several kilometers distant, and no doubt "mother and child are doing well." I concede, however, that this birthday party should be classified as another "once in a lifetime" experience, for I do not believe one can guarantee such a "party" as a Sunday occurrence in Cliza.

I described in detail the Indian market in La Paz but the Cliza market is different: in La Paz the Indian market overflowed from its allotted streets into the Cholo and even into Greek and Turk shops, but at Cliza all was purely Indian and what a riot of color! There was the same savory stew: I am sure their recipes must be handed down from generation to generation and, apparently, from tribe to tribe as well. At this market we bought those misnamed Cochabamba rugs—they should be called Cliza rugs, for here they are made; you remember the one you saw at my sister Annie's? Hers is typical of these gorgeous, tightly handwoven sheep-wool rugs, generally seven feet by nine, in the center a *pavo real* (peacock) with outspread tail, and the bird inside of a six-pointed star of white or yellow or red rays; the background always red, dark red, light red, sometimes almost a pink; the border with Bolivian flags (red, yellow and green), or the Bolivian shield, or swastikas, or conventional designs, or, perhaps a blending of two or more or even of all the designs in the border of one rug! When one bears in mind that all this work is done by hand, the design carried out "in the head" and always symmetrical, that the wool is hand prepared in all its stages, dyed by their own native dyes, which never "run," one is extremely surprised that the Indian can fashion such a thing of beauty with such crude methods, and when one learns that it takes six months or perhaps more to complete one rug, then one

MORE ABOUT CHOJÑACOTA

is amazed at the price—they can be bought as low as *B/25* (twenty-five *bolivianos*), at that time about \$8.75 U. S. currency; the price one pays depends upon his bargaining ability—one feels that the first asking price is already too cheap but the vendor would be very much disappointed if you paid what he first asked and I am sure the South Americans buy these rugs, and everything else, much cheaper than we Gringos do. As soon as we three Gringos entered that market, the rug vendors were on our trail and we did buy the whole stock, six rugs, no two alike; they seem to be exact replicas at first glance, yet of the dozens I have seen, there is always some slight difference. (Now I hear the rugs are dyed with imported dyes and do “run” and they are not so artistic either.) We bought some small “runners,” too, that are very attractive and which could be made in a few days, for thirty cents apiece, and I am still using them; more than six years of constant use and they have been sent “to the wash” countless times. The peacock rugs I have always deemed too lovely for the floor and have tacked mine on the wall as a piece of tapestry.

There was also a great deal of pottery but Clarence hurried me by this; a large assortment of baskets, not as “finished” as those of Copocabana but some very pretty ones—I am still using one as a mending basket, which I brought all the way to Santo Domingo, and while we declare that anything brought to Santo Domingo is not to be taken out again, I feel that when the time comes to leave that basket, I’ll “smuggle” it out. The Cliza market is colorful, extremely interesting and I’d love to go again; we spent all the money we had, borrowed all Miss Danskin had, but fortunately we had return tickets to Cochabamba.

The week remaining of our vacation in Cochabamba went all too quickly; Clarence relearned to roller skate, and we brought Miss Danskin home with us. I remember how we kept up a continuous chatter and kept pointing out points of interest to her from Caxata to Pampa Mina, in order that she should not become frightened but she did “hold her breath” many times and continued saying over and over again, “I never in my whole life expected to ever see any-

HIGH SPOTS IN THE ANDES

thing as grand and as beautiful as this." We hoped to have her stay four weeks with us but she "felt the altitude" and remained only fifteen days. Another "remind" how the altitude affects different people: Miss Danskin couldn't sleep, felt "headache-y" and felt she couldn't breathe adequately. She was accustomed to take a cold bath every morning and although we had electric stoves in the bathroom, she didn't quite have the courage to take a cold bath in Chojñacota and she missed that "tonic." Another woman had a harrowing experience: one Saturday late in the afternoon this young woman and her brother stopped at the house to inquire for Mr. Woods; he was not in the office nor at the mill so I suggested he might be up at the plaza. They went up to the plaza, did not find him, and returned almost immediately. She seemed very tired so I asked her to wait for Mr. Woods in my *sala* and she had no more than seated herself when she fainted; her brother and I placed her on the couch, did all the "first aid" essentials and she recovered consciousness only to "go out" a second time. In the meantime I had telephoned to the doctor and Miss Danskin had hurried over to ask Mrs. Karatieff to come at once. The woman regained consciousness a second time but for only a moment or two and then relapsed into unconsciousness the third time; with the combined efforts of the doctor, of Mrs. Karatieff, Miss Krause and the rest of us, she was finally brought back and was carried to the guest house, where her brother cared for her throughout the night and the following morning she was able to ride down to Pampa Mina and she, her brother and Miss Danskin left on the same *camion* for Eucaliptus. I think this unfortunate occurrence hastened Miss Danskin's departure. The young woman and her brother had come to Chojñacota to put on a show, whether a cinema or trained dogs, I have forgotten which, but they never gave their entertainment, although they gave us plenty of excitement at the Administration; a little later I received a letter from the sister from Oruro, thanking us for our kindness and hospitality.

Now you are wondering who Mrs. Karatieff is: she is the English wife of a one-time Russian Count, who was our

MORE ABOUT CHOJÑACOTA

Mill Superintendent; she not only was a nurse but had studied medicine in England for several years, had taught English in the Berlitz School of Languages in Germany and she spoke her native tongue, German, French and Russian equally well and "took to" Spanish as a duck to water. She has experienced more "ups and downs" than falls to the lot of the average woman, for she saved not only her own life but that of her husband by nursing wounded soldiers during the World War and lived through all the horrors of the Russian Revolution—she tells actual occurrences that make one's hair stand on end; she and her husband by dint of strategy and some political "pull" were finally permitted to leave for England, where they arrived penniless, in rags and wholly destitute—and she had married a millionaire! But the "downs" have not embittered either her or her husband, who has more university degrees affixed to his titled name than anyone I have ever met, and, as you know, a big slice of my life has been spent among college professors; they are high up in the list of the nicest and most cultured people we know and we are pleased to count them very good friends.

But to return to the effects of high altitude: Miss Krause brought a pedigreed, well-trained, German police-dog, named Gumpel, when she came to live with us. Miss Krause is especially fond of dogs, in fact, she has quite a number of trophies awarded her for training the best police-dog in several annual dog-contests held in Kiel, Germany. Gumpel began to lose appetite, to lose "pep," to be ill and Miss Krause cared for him as if he were an only child; one afternoon when she returned from a walk, Gumpel lay stretched out before her bed in his last sleep—the high altitude had been too much for him and his passing on was almost too much for Miss Krause. Clarence had the dog carried away and buried, while the rest of us tried to assuage her grief; she could eat no supper and I don't believe she slept that first night; she mourned without reserve for several days. We did not tell her just where Gumpel was buried but she knew it was somewhere on the west hillside and as long as she remained in Chojñacota, I think she never watched a

HIGH SPOTS IN THE ANDES

sunset without longing for her beloved Gumpel. Although without nerves at all or seemingly of iron ones, if any, yet Miss Krause "felt the altitude" and did not quite complete two years with us.

We still had Guadalupe and were especially fortunate in getting Amalia, who had had five years' experience and training under Mrs. Washburn, who was "Direktora" at La Paz but also domestic science teacher at the American Institute in Cochabamba. Amalia was, without exception, the best cook we have ever had; she was slow but her meals were so excellent, when they finally did appear on the table, that one gladly forgave her tardiness. Not very long after Amalia's arrival, Guadalupe received a letter that her father was ill and she must go to him at once; her father's illness lasted about a month and when Guadalupe returned, pale as a ghost, she had had another child, her fourth. Mrs. Karatieff thought Clarence was very hard-boiled because he refused to compel a carpenter, the alleged father of Guadalupe's fourth child, to marry her; I am inclined to believe a manager would soon have more fame than any celebrated "marrying parson" if he undertook to force the fathers into matrimony with all the expectant mothers of his domain. Mrs. Karatieff had not yet resided a year in South America and I presume that by this time she herself is as calloused as the rest of us *re* the moral situation. Guadalupe simply could not "stand the altitude" any more and I let her go with regret.

Amalia brought her cousin, Ernestina, from La Paz and my servant problems were "nil" all the rest of the time we were in Chojñacota; Ernestina was as quick as Amalia was slow, hence they made a splendid team. Ernestina is the first Chola I know of, who bobbed her hair and who wore modern clothes; not only did she find time to do all the work that Guadalupe had previously done and to help Amalia in the kitchen but she became a personal maid for me as well. I deeply regretted leaving these two capable girls and how they did weep on the day of our departure! They wept so copiously that, to distract them a bit, I asked if I might borrow Amalia's "best" clothes to have my picture

MORE ABOUT CHOJÑACOTA

taken, so she brought me a half dozen *polleras*, basque, stiff hat, earrings and all, but I felt I did not have time to put on the high boots and so I was "snapped" alone and then with the two girls and they were so amused they almost forgot we were leaving. A few months after we came to Santo Domingo, Amalia married, really married, the carpenter and as far as I know they have "lived happily ever afterward." Ernestina returned to her former employer in La Paz, who was happy to take her back. This ends my servant chronicles, for we have not kept house since coming to Santo Domingo. We have our own home but the servants from the hotel also take care of my house and Miss Krause is housekeeper at Casa Santo Domingo and she manages all the servants.

A few more "high altitude" narratives and then I must close. Our third Christmas in Chojñacota we were expecting Mr. Whittaker, who had something to do with the finances of Bolivia in some official United States capacity—definite, isn't it?—and Mr. McGurk, the United States Consul, to have Christmas dinner with us and to stay long enough for the "three treats." They arrived as far as Pampa Mina, where our doctor met them—we had received a telegram from Caxata that Mr. Whittaker was ill. The doctor advised that they return at once as Mr. Whittaker was suffering from *soroche*; he was unable to "stand the altitude" and as soon as they arrived in Eucaliptus he became quite all right again. Mr. McGurk made a second attempt to visit us but again someone in the party became quite ill, necessitating an immediate "get away," so we did not have the pleasure of taking him to "our" glacier, or to Lake Huayatani, but I believe he did make a trip to Araca without anyone of the party becoming ill.

Mr. Bricker was another "victim"; he is a very well-known "character" among mining people, somewhat like "Swift-water Bill" Gates, in that he has made and lost and made again many fortunes, is also an American citizen of German descent, but here the similarity ends. Mr. Bricker has traveled practically all over the world, was in South Africa during Cecil Rhodes' time, prospected in Australia, in Alaska and came to South America more than thirty years

HIGH SPOTS IN THE ANDES

ago. We had heard so many stories of his eccentricities: that he wore earrings, that he always carried a pocketful of loose gems, mostly emeralds, wonderfully fine gems, and offered one or two or even a whole handful to whomsoever he took a fancy, that once when taking some friends out for a ride in a brand new car, a Packard, I think, the young daughter of the family was so delighted with the car that she exclaimed, "Oh, I wish I had a car just like this," and when he drove the car up to her home, he asked the young girl if she really wanted such a car, and upon her affirmative he got out of the car and presented her with that new Packard then and there! I knew he was sending at least one student and I heard that he had sent several more to school at the American Institute, so when Clarence told me he had received a telegram that Mr. Bricker, with some friends, was coming to Chojñacota for several days, I was very much on the *qui vive* to see him.

He and his two associates arrived shortly before dinner in the evening and we visited but a short time after dinner as Mr. Bricker seemed very tired. He did have earrings, but they were small gold hoops and inconspicuous—I had been picturing him with long, bizarre ear drops—and he did not look at all like the highly advertised prospector with the wide hat and red flannel shirt but, on the contrary, gave the appearance of a kindly old gentleman "of the old school," well bred, serious but with a twinkle in his eyes, indicating a sense of humor, which perhaps "saved the day," and him, in those much talked of reverses. He told us entertainingly a little of his rich and varied experiences but as we expected him to be our guest for a week, we persuaded him to retire early. During the night he became quite ill and our doctor hurried him off the following morning *before* breakfast; although he had prospected, mined and lived in very high altitudes a large part of his life, yet he was taken with a severe attack of *soroche* and was carried down the hill to the waiting auto. Fortunately, he recovered his usual good health shortly after arriving at a lower altitude. He must be nearing eighty now but is still "going strong," promoting mines in southern Chile, according to latest news of him.

MORE ABOUT CHOJÑACOTA

I shall always regret that we did not learn to know him better and that I have never had the opportunity to thank him personally for the ten-pound box of delicious candy which he sent me shortly after his all too brief visit at Chojñacota.

To counteract these "not being able to stand the altitude" stories I must not forget to tell you that Mr. and Mrs. Howell and their two babies, the younger about a month old, spent a carnival week with us, and all four seemed to thrive on the altitude. The elder daughter, about three, had very blonde hair, so fair it had a faint bluish tinge, and many Bolivians had never seen such white hair. Even our doctor had to feel of her hair to convince himself it was real, while the Indians stared at her in awe; she was a cute little "tyke," not at all afraid and I feel quite sure that if those Indians, who kissed our hands, thought Clarence and I were gods, they undoubtedly took little Mary Jane Howell to be an angel.

And I do want to add, lest I forget, that our short-time guest, Mr. Bricker, had the "Order of the Condor" conferred upon him by the Bolivian Government, the highest honor there is in Bolivia to be conferred upon a Gringo. It is your fault that this letter is so long; you shouldn't have asked so many questions nor insisted that I write everything in detail.

CHAPTER VIII

CLARENCE'S ILLNESS—SUPERSTITIONS—ON OUR WAY TO SANTO DOMINGO

Santo Domingo Mine, April 29, 1932.

DEAREST IVA:

I have not replied to your air-mail response to my installment of the Chojñacota letter, for just a few days after I mailed that letter to you I was called to the bedside of my beloved Clarence, who was lying ill in a hospital in Arequipa. He had been to Lima and was on his way home, when the dread typhoid laid him low; I received the message the night of Washington's birthday, which we had been celebrating in our usual American way, with a big dinner interspersed with speeches, the waving of the Stars and Stripes, and with an occasional scream of the eagle. I left the next morning, our doctor accompanying me as far as Huancarani, where the automobile was awaiting me.

How can I ever describe that trip to give you even the faintest idea not only of the mental anguish but of the great physical discomfort, the real dangers and some almost miraculous escapes from death? February and March are the worst months of the rainy season and no one travels in this section of the Andes during these two months, unless it is a case of dire necessity. Usually the trip to Oconeque can be made leisurely in one day but we were delayed three hours by a swollen stream a short distance this side of Quitun; ordinarily the creek is so low, that in wading, the water barely covers one's ankles, now it was a raging torrent. A herd of llamas with their *llameros* were on the opposite side of the now angry river, waiting to cross. When the water had subsided a little, these Indian llama herders cut down a couple of trees (a species of the *palo santo*, which is hollow and partitioned off in spaces of a foot or eighteen

CLARENCE'S ILLNESS—SUPERSTITIONS

inches apart, serving as an apartment house for ants; usually avoided like smallpox by the Indians but in an emergency as this there was nothing else to do); they felled the trees with their machetes, lashed the two together with their home-woven ropes, tied another rope at the end of the trees and managed, after several attempts, to throw this rope to our side of the stream, where our Indian *mulero* fastened this end of the trees securely with heavy rocks while the *llameros* were fastening the other end in like manner; thus a bridge was made to span the turbulent, roaring waters, at the narrowest place, naturally, but here the waters boiled the most. Then the Quitun-side Indians threw still another rope across to us and with two Indians firmly holding each end of this rope, we had an improvised railing to clutch as we cautiously stepped sidewise over this slippery footbridge; the doctor crossed first and then I followed, keeping my eyes glued to the railing—a misstep would have been fatal, for no one could have been rescued from that boiling cauldron below; the water lapped our feet and occasionally wet our ankles. With a prayer of gratitude in our hearts for having made a safe crossing, we walked the short distance to Quitun, where we had *almuerzo*, the noon meal, consisting of the inevitable *chupe*, a soup concocted with dried mutton, dried potatoes, native herbs and plenty of *aji* (red pepper); this with heavy, black bread begins and ends the menu. Needless to say I could not eat—the most tempting food would not have appealed to me but even under the most favorable circumstances I fear I would have to be starved into eating this evil-looking and still worse smelling *chupe*. Our mules were delayed an hour and a half longer in crossing the stream but we arrived at Oconeque just as it was “nighting” on Wednesday.

We left very early Thursday morning in order to arrive at Agualani before the creek had risen too much to allow crossing but, perversely, we arrived too early; it had rained incessantly all night but was slackening somewhat as we started out. Flores, the trail rider, who lives at Oconeque, sent two “tried and trusted” expert river men with us. We all sat at the shore, watching the swirling, foaming water,

HIGH SPOTS IN THE ANDES

it seemed to me for interminable hours, when one of the Indians said, "Now we can cross," and yet to my unpracticed eye, the water had not lowered an inch. The doctor removed his medicine case—that, at least, would be saved in case of misfortune; he was "killing two birds with one stone" in accompanying me out, for he had to see a patient at Limbani. The Indian mounted the doctor's mule and forded the angry stream to show us that it could be done; he headed upstream and kept the mule's head turned that way but the strong current pushed the mule downstream. I admit I was terribly frightened—nothing but the picture of Clarence lying ill in a hospital could have induced me to mount my nervous mule and attempt that frightful, it seemed suicidal, crossing and I had to do it alone—no man could stand up in that raging flood; too terrified to even recall a word of a Psalm, I put my feet up on the mule's neck, clung to the pommel of the saddle and I kept my eyes as well as those of the mule pointed upstream and, after what seemed an eternity, we were safe on the other side. Trusting myself then to look down, it seemed to me we lacked but six inches from the whirlpool, where we emerged; had we been pushed those few inches farther, into that maelstrom, no human agency could have saved me nor the mule. I trembled and shook for a full half hour, even though I knew I was safely across, and I could not watch the doctor make the hazardous crossing, neither was I able to dismount—I was "plain scared stiff."

We did not arrive at Huancarani until three in the afternoon—with our early start, we should have arrived at eleven in the morning; and instead of Cuadros, our motor-transportation agent—such an experienced chauffeur that we rely upon him implicitly to bring us through, whatever the conditions may be—instead of Cuadros himself, he had sent his assistant, a very good driver, but being a much younger man, he lacked the judgment that I, at least, felt was needed on this trip. Leaving Huancarani so late, it was impossible to get farther than Crucero, and for many kilometers before we reached Crucero there was no distinct road to be seen; the entire stretch of *altiplano* seemed to be a lake, hence

CLARENCE'S ILLNESS—SUPERSTITIONS

we had to proceed very, very slowly; it rained almost incessantly, not a downpour but a steady, drizzling rain from the time we left Santo Domingo until shortly after we left Huancarani, when the rain changed to snow. We arrived at that cold, bleak village of Crucero about six and I went at once to bed, removing only my boots and wraps, piling on the mountain of heavy but not warmth-giving blankets, having my dinner of hot milk brought to me. I asked the hotel proprietor to see that we got started not later than six in the morning. I told him that we would not expect breakfast but that we would stop at Rosario for something to eat, but he insisted that no matter how early I cared to leave *desayuno* would be ready for us. I was awake several times during the night; it snowed all night; at five I heard no moving around; at five-thirty I went to the kitchen, roused the cook; her little boy and several dozen guinea pigs also came to life. I told her to send the *chico* to wake the chauffeur, that we would leave as soon as the car was ready and that she was not to bother about breakfast, but "mine host" had evidently told her to prepare eggs and, "willy-nilly," I had to wait for the "passed" eggs. It took the chauffeur a long time to get the car started and at seven, in a driving snowstorm, we finally got away. The doctor came only as far as Huancarani with me; he returned at once to Limbani to look after a patient and then hastened back to Santo Domingo, for it seems every time the doctor is absent from the mine, that is the time chosen to have an accident! But aside from being needed at the mine, we all felt that after I got into the automobile, the journey troubles would be over. They just began!

We skidded (skated, from *patinar*, they say down here) and "slithered" along the slippery road, necessarily proceeding very slowly and eventually arrived at Rosario, where we were told it was absolutely impossible to cross the river; the stream was bridged here but a flood several years previous to our time had carried away the approach of the bridge on the far side and the government had never repaired it: in the dry season, the bridge was not needed and in the rainy season it couldn't be fixed. The chauffeur put it up

HIGH SPOTS IN THE ANDES

to me, if we should attempt the crossing; anxious as I was to go on, yet I did not want to decide his fate as well as my own. After trying the depth in several places, he suggested that I walk across the bridge—one of the spans, a railroad rail, still spanned the river—and he promised to use every precaution in trying to get across, that if it appeared too dangerous, he would back out. A young man from Rosario helped me across the bridge. The rail was slippery with snow but happily there was only about ten feet of it to navigate and I tried not to see the roaring river below. Then I nervously watched the chauffeur plunge along—he had first unfastened the fan and covered the entire engine with canvas (this he did at every river)—then he would “put her in high and step on the gas”; twice my heart stopped, missed a beat, as the car seemed to sway and I thought surely it would topple over into the swirling, greedy waters, but he made it and I climbed into the wet car and we were off again to slip and slide. Landslides delayed us—the chauffeur and his helper would get out and shovel dirt and *débris*, just enough so the car could climb over the obstruction and bump safely down on the other side; a culvert was completely swept away so the two men had to build a road down into the creek and then another to get back on the main road; a little farther and we saw no road at all! The rampageous, icy river had cut out a huge slice of the road as one would cut a third of a loaf cake in the middle. What to do? It seemed we would surely have to turn back, but I presume the chauffeur caught the imploring look in my eyes, for he told his helper to wade along the edge of the stream and with a stick to feel his way and we would follow in the car; thus for twenty minutes, it seemed almost that many hours, we nosed our way along what once had been a roadbed and after many desperate efforts, the car clambered up on the main road once more.

At Triunfo we were told we could not possibly cross the river at Recreo, that it would be suicidal to attempt it, that we would better remain at Triunfo until the waters subsided, and again the chauffeur put it up to me. I suggested we go to Recreo and then decide. Recreo is a *finca* (farm) at

CLARENCE'S ILLNESS—SUPERSTITIONS

the river's edge but the owner is almost never at home, leaving the ranch in care of Indians, who will not permit any one to remain overnight, so we knew, if we were unable to proceed, that we would have to return to Triunfo, about fifteen miles. For some reason or other there were a dozen or more Indians at Recreo and several of them assured us that we could make the crossing safely, so we disconnected the fan, covered the engine and "stepped on the gas"; but we did not get a sixth of the way across—I should guess we went about twenty yards—when the water came over the seat, the engine gasped and died and the car was actually beginning to topple over. I thought, "this is the end," but the Indians had seen our plight. Eight or nine ran out to us, braced the car from overturning and, with the help of the chauffeur, succeeded in backing the car out. This was our "closest shave."

The car was now useless to go on and we had about made up our minds to return to Triunfo when a couple of men came riding up, and on learning the urgent reason for the trip, offered to get horses for the chauffeur and me to ford the river, and I most thankfully accepted the offer. One of these men led the way across the river, told me not to look down but to keep my eyes upstream and always toward the opposite bank. The current was very swift and our horses drifted terribly downstream; I preferred wet feet rather than taking the chance of being swept out of the saddle, and kept my feet in the stirrups, and kept my eyes glued to the man ahead, but I was quite dizzy before we landed and I fear another five minutes would have caused me to let go of my desperate clutching to the pommel of the saddle. The chauffeur followed with my one bag, which he jauntily held up in front of him.

It quit raining about this time and the fifteen-mile horseback ride to Asillo over a relatively good road would have been a pleasure under normal conditions. Pancho (nickname for Francisco), the chauffeur, was confident that Cuadros would be at Asillo to meet us, for he had arranged to leave Tirapata Thursday noon, if we had not yet put in an appearance.

HIGH SPOTS IN THE ANDES

We arrived at the rather large Indian village of Asillo at six and went to an inn where I had stayed before on a previous "full of adventure" trip but one in which time was no factor. The landlady welcomed me as a long-lost sister—queer how the news of Clarence's illness had been "grapevined" all along the way—but there was no Cuadros awaiting us at Asillo. The innkeeper advised me that, even if Cuadros arrived yet that night, we could not go on to Tirapata, for the road was *muy terrible*. Again I went at once to bed (the bed was a concrete platform in a corner of the room; there were four such concrete beds, one in each corner, but, fortunately, I was the only guest that night) and had my dinner of hot milk served in bed (fresh milk is really a luxury anywhere between Arequipa and the mine, so I was doubly fortunate in being able to have it twice). There was the usual mountain of heavy blankets but there were two sheets, both clean, a circumstance to be most devoutly thankful for, even though you only removed your boots and some outer clothing. I was up bright and early in the morning awaiting Cuadros, expecting every moment to hear the honking of his car—one always honks loudly and continuously several minutes before entering any Indian village, to clear the narrow streets of the numerous dogs and chickens, men and women; the honking may announce your coming and bring them all out, but at the same time it warns them to keep out of the way. I walked up the hill from whence Cuadros would come and back to the village many times, but at eight, I hired another car to take me to Tirapata. Pancho had left Asillo very early this same morning for Recreo to get his car in condition for whatever occasion might arise. The new chauffeur was dubious about getting to Tirapata and consented to try only with the condition that he be allowed to take four men along as helpers in case of trouble—and we had plenty of trouble!

While the distance between Asillo and Tirapata is a little less than five leagues (fifteen miles) and in the dry season has been made in a half hour, in the wet season, the flat, marshy country becomes a sticky morass, a quagmire. Happily he met Cuadros only a kilometer or so out from Asillo.

CLARENCE'S ILLNESS—SUPERSTITIONS

His truck had mired, he had broken an axle and was on the point of walking in to Asillo, when we drove, or rather crawled up. I asked him to abandon the truck and return with us and if he hadn't, we would never have reached Tirapata that day, in a car, anyway. We abandoned the regular road entirely, tried out places here and there and everywhere, miring countless times; all would pile out of the car, except the chauffeur, the five men would work furiously, tearing up tufts of grass, digging out the wheels, and placing the grass quickly in the gutters to give purchase to the revolving wheels, then all five lift with all their might, until, after repeated efforts, the car would run—the men would run, too, and climb in, but for just a few minutes, and then another miring! The train was due to leave Tirapata at four-thirty and there are but two trains a week; we could see the windmill at the station—it was maddening to be so close and yet feel that I might miss the train—the torment of Tantalus was mine. When I left Santo Domingo, I had planned to get to Tirapata in plenty of time for a two days' rest, time to pack suitcases, to do the thousand and one things necessary on starting out for such an indefinite stay; now I prayed only that I would catch the train—such details as a bath or a change of clothing became of no consequence. At two a horseman met us with a telegram from our good friend, Mr. Corry, Chief Engineer of the Railway of Southern Peru, with the comforting news that Clarence had had no fever for two days but he was very weak. Our agent at Tirapata had thoughtfully sent the message on to me, for he knew we were held up somewhere and that I was very anxious for news of Clarence. At three the exhausted party arrived at Tirapata—the men bespattered with mud from head to foot, all of them wet to the waist, for many times they had to dig the car out of a river of water.

With but scanty thanks for their heroic efforts, I hurried to my room, frantically trying to undress, pack and do a dozen things at one time, when Mrs. Christen came with the "last straw" news, that there would be no train! There was a gigantic landslide between Sicuani and Cuzco and the train was on the other side of Sicuani, there was no telling

HIGH SPOTS IN THE ANDES

when a train could get through! In the meantime, Mr. Christen telegraphed to Puno for the autocarril (an auto adjusted to run on the railroad track) and within a half hour came the reply that the autocarril was out of commission! Then he telegraphed to Mr. Corry at Arequipa for permission for me to ride in a hand car to Juliaca but Mr. Corry was in Mollendo and his assistant wired back that, due to the gravity of the slide at Sicuani, it was advisable not to allow any hand cars to leave Tirapata; but the message to Mr. Corry was forwarded to him and just a little later another telegram came, granting the permission. Mrs. Christen and the three girls helped me to get ready; Mr. Christen put a mattress on the hand car, so I could lie down, brought several blankets and his poncho made of rubber, through which no wind nor rain could penetrate; a lunch was hastily prepared and at five, we were off.

Juliaca is forty and one-half miles from Tirapata and the train usually makes it in an hour and a half to two hours but hand propulsion is a little slower than a steam engine. I was quite comfortable at first, sitting with my feet dangling down in front of the car, until we arrived at the first station, Pucará, where two men came to me with a telegram, purporting to give them permission to ride on the same car with me to Juliaca—they had some urgent reason, I do not remember what, for getting to Puno; I was perfectly willing they should accompany me, whether they had the permission or not, all I was concerned about was to get to Juliaca, so I could catch the train to Arequipa the following morning. But taking on two more passengers meant adding more manpower; we had started out from Tirapata with four husky Indians, at Pucará we took on two more—this made the car quite crowded but the two passengers riding in front of my “private berth” served as a windshield and I can assure you I was grateful for that windshield before the trip was over! While the *altiplano* seems to be flat, yet there were some uphill pulls, when it took all the efforts of the six Indians to make the grade, and then coming downhill there was the consequent holding back and even then, it seemed at times that we would surely fly off the track. About midway,



Plaza de Armas, Arequipa



Near Arequipa—Indian Woman with Baby on her Back



Indian Woman Spinning as she Walks

CLARENCE'S ILLNESS—SUPERSTITIONS

I have forgotten the name of the station, we were held up some fifteen minutes for further orders from Juliaca; here the six Indians were relieved by six others and again we were off. Brr-rr-rr, but it was cold! In spite of all my efforts and those of the two *caballeros*, the bitterly cold wind would penetrate around the edges of the poncho and sometimes a sudden blast would lift the entire poncho, and but for clutching hands, would have swept it all the way back to Tirapata. If you ever want to experience a really cutting, penetrating to the bones and marrow, cold wind, take a midnight ride on an open hand car in the great "wide open spaces" of the *altiplano*; but for the blankets, the rubber poncho, and the two men as a shield, I don't believe I could have survived that fearfully cold ride. Those two men were swathed in mufflers, their overcoat collars turned up and their caps pulled down low, and at every stop they creakingly climbed down, stamped their feet and swung their arms to coax a little warmth into their chilled bodies; yet I was told that the six Indians were actually sweating from their exertions.

We arrived at Juliaca at one-thirty of the "cold, gray dawning," almost too numbed with the cold to care whether we arrived or not, but Mr. Christen had wired the hotel of my coming, so a *mozo*, half-asleep at the door, let us in and conducted me to a cold room; but it, at least, was a protection from the biting wind. Removing only wraps, but piling them on the bed for extra warmth, I crawled between the shivery sheets and dozed off to dream of bright lights, a comfortable couch, piled high with downy pillows, in front of a huge fireplace in which crackled a roaring fire; and I awoke in a cheerless, frigid room with aching bones and a real case of *soroche*. But the breakfast brought to my room—and in all South American hotels breakfast is served in your room—although consisting of merely *café con leche* (coffee with hot milk and much more milk than coffee) and toast, no, just bread, for if you want toast it must be especially ordered, and if you want jam for your toast, you must pay for the whole jar, even though you use but a spoonful—yet the breakfast warmed my "innards" and I was so glad that I had entered on the last lap of this nerve-racking trip

HIGH SPOTS IN THE ANDES

that past worries were forgotten and I was at the station betimes, in fact, before the gates were open. Our good friend, Dr. Reed of the "Clinica Americana," was at the station and his eyes almost popped out of his head, when he saw me, for he could not imagine how I had arrived at Juliaca, with all train service to and from Cuzco held up indefinitely. He introduced me to a missionary nurse, who is a great friend of the Head Nurse in the hospital at Arequipa, where Clarence was domiciled; she told me that Clarence was doing splendidly, which, of course, was a great comfort, and she also related this: when Miss Hunt, the nurse, told the doctor that Clarence had no more fever, he could not believe it and he placed the fever thermometer in Clarence's mouth with instructions to leave it there until he, himself, came back to read it; the doctor was making his daily round of visiting the patients but was called out on the street and completely forgot about the thermometer in Clarence's mouth, where, she said, it remained for hours! Clarence said it was too bad to spoil a good story like that but in reality the thermometer was under his arm and not more than twenty minutes, for Miss Hunt relieved him of it.

I was the only passenger in the *coche salon* and to ride in "solitary grandeur" from eight-thirty in the morning until five-thirty in the afternoon over a route that you know by heart and quite often "by stomach," for it curves in and out in a most distressing manner and it took all my "holding the right thought" to keep my luncheon where it should stay, such solitary grandeur soon palls; to read was impossible with the train jerking so violently, while in trying to play *solitaire*, the cards were more often on the floor than on the table; such an unaccompanied day's journey is monotonous and unpleasant enough under the most auspicious conditions but to me, on this day, it seemed it would never end.

However, we did finally arrive at Arequipa, where "Tia" Bates, of the widely-known Quinta of her name, met me and at my first words, "How is Clarence?" she replied, "Oh, fine, he looks better than you do." We drove at once to the hospital. Mr. Vickery of Grace & Co. was with him; he had been a daily visitor ever since Clarence was taken

CLARENCE'S ILLNESS—SUPERSTITIONS

to the hospital and we shall always remember his faithfulness and good-heartedness with loving gratitude. Clarence did look better than I had dared to hope—his eyes were clear but he was still pitifully weak. And were we glad to see each other! Both of us vowed that “never again” would we be separated even for the shortest time, but alas! we had vowed that before and had had to break the vow and have had to do so since. I shall not bore you with further details—suffice to say that he was in the hospital four weeks more, then we went to Mollendo for another four weeks, where he recuperated very, very rapidly. Now we are home again and I am praying that we shall both be able to remain right here for a year at least.

But, my dear, this letter was to tell you of the trip to Santo Domingo and here I have taken you *from* the mine! What an array of questions! How did we entertain so many guests in such a tiny home at Chojñacota? I often wondered myself how we did it. The guest house contained two large rooms, each with two three-quarter sized beds—they would take care of eight people; we had a wide couch in our *sala*, which more than once “slept” two small people; several times our office force would “double up” and thus let our guests have a bed, and I remember when once with all this we had to put a “shake-down” on the floor in one of the guest rooms. However, more than four guests at a time for a week, or for a week-end, was a rare occurrence, and as for “eats,” unexpected guests, and there were so many, were taken care of by always having plenty of salad dressing, canned goods, and never allowing the cookie jar to be empty.

Did I mind very much being the only white woman in camp? Well, not *very* much; whenever this particular phase of nostalgia manifested itself, I donned coat and hat and took a brisk walk; returning from the second lake, and sometimes even from the third, I usually thanked my lucky stars that I was privileged to enjoy such magnificent scenery. I rode a great deal with Clarence and we had a well-stocked library besides the great number of magazines from the States. We had a very good phonograph with several hundred records, the very best of the classics—one of the previous

HIGH SPOTS IN THE ANDES

managers was a real musician—but, nevertheless, I often wished for a woman-friend—many, many times I wished “Iva would drop in,” for you were always a tonic to me. With the coming of Miss Krause, I used my German more and after Mrs. Karatieff arrived, well, she and I discussed and “settled” most of the problems of the world.

What games do Bolivian children play? Ah, bless the little children—they seem to be the same the world over: the boys fly kites (*cometas*—comets; well-named, don’t you think so?), play marbles, and from the quarreling I have heard, I am quite sure they play “for keeps,” too; they play ball, hide and seek, and I suspect they even have “gangs” that sally forth from robbers’ dens. The predilection of the little girls is for dolls, *muñecas*—every tot has at least the semblance of a doll, be it but a rag with a string around the neck and another around the middle to distinguish head, trunk and limbs. I remember one Christmas at Pulacayo, when the Manager played “Santa Claus” to all the kiddies in camp, with two enormous boxes of toys from Chicago and we “Gringas” undertook to distribute the toys according to each child’s wish—but the *muñecas* gave out long before the procession of little girls was even half completed and no toy, no matter how gorgeous—a whole parlor set, or even a complete laundry set—would compensate for the wished-for doll. Every little girl carries her doll in a *llijilla* (shawl) on her back and the girls make mud pies and “keep house” just as their northern “cousins” do.

Superstitions? Ah, my dear, what a fascinating and almost inexhaustible field you are asking me to explore for you! I have gathered here a little and there a little from the Indian, the Cholo and the *gente decente* himself; I have read a little, but literature on this subject is very scarce, and most of my information is “second-hand”; but all that I have gathered, to me, is extremely interesting. I shall not attempt to write it all—that would require a whole book of itself—but I’ll try to sketch rapidly the “high lights.”

So steeped is the Indian in myths and superstitions, that I verily believe no minute of the day or night but is with some portent or signification, for every dream foretells some-

CLARENCE'S ILLNESS—SUPERSTITIONS

thing, every rock or pebble or flower or blade of grass tells him what to expect, and usually he expects evil; the multiplicity of religious fiestas, the profusion in which he erects temples and chapels, his confounding of religious and pagan rites, his excessive alcoholic thirst, all these foster superstitions. He has a calendar of unlucky days, thirty-two in all but the three worst of the whole year are March 15th, August 18th and Sept. 18th (I have not been able to find out why); the next bad ones are: the first Monday in August, when Cain was born; the first Monday in September, when Judas was born; the fourth Monday in September, when Herod was born; and the first Monday in April, when Sodom and Gomorrah were destroyed.

January is the unluckiest month of all, for it has nine evil days; February, March and August each have three, October and June but one each, while the remaining months each have two; Friday is always unlucky, for Christ was crucified on that day; thirteen people gathered together anywhere signifies that one will die within the year, probably from thirteen at the Last Supper.

The moon plays an important rôle, not only with farmers but in all walks of life. The farmer sows only when the moon is in the last quarter, for he believes that the seed sown in the first quarter of the moon goes to stems and leaves with but little fruit; he harvests during the new or full moon, believing that then the fruit will be big and heavy.

One should never wash clothes when the moon is decreasing, for then the clothes will tear easily or wear out prematurely.

The hair will grow luxuriantly if washed in the first quarter of the moon.

The Indian fears yet reverences the rainbow: children are not permitted to look directly at it, for fear they will die; adults close the mouth tightly so no tooth shows, when looking at the rainbow, else they, too, will die; dangerous birds dwell at the foot of the rainbow.

The Indian tells fortunes with coca leaves as the white man (or woman, rather) does with cards; chewed coca also

HIGH SPOTS IN THE ANDES

serves as an amulet against all misfortune; the Indian always adds a rock or pebble to the pile of rocks on the summit of a hill or mountain—he reverently spits coca on the pile or places the feather of a bird among the rocks as a thank-offering for safety thus far and begs protection for the descent.

When coming to a river, he always drinks of the water, no matter how muddy it may be, asks the water to allow him to pass safely and then gives his offering of chewed coca.

Unlike the whites, the Indian's witch or soothsayer is always an old man, never a woman. To avoid witchery, the Indian puts his pantaloons on wrong side out, his woman her skirts on Tuesdays and Thursdays.

No Indian will slaughter cattle for food or start on a journey on Tuesday; if starting out on a journey, he always leaves very early, before daybreak, for he believes if any one sees him depart, he might cast a spell upon him and his trip would be disastrous. But before leaving, the family goes through a formal ceremony: each member of the family puts three leaves of coca together, pours alcohol over them and consigns them to the fire, after which they all drink, usually *chicha*, to the success of the trip.

In building a house, elaborate ceremonies start as soon as the foundation is laid, beginning about ten at night and lasting until dawn: a table is spread with food, alcohol, *chicha*, pieces of tallow, coca and herbs, which are offerings to the spirits. Friends and relatives are invited. A fire is started at one side and then each person takes three leaves of coca, gives them to the Master of Ceremonies, who pours alcohol over them and consigns them to the flames; meanwhile the entire assemblage kneels and chants a prayer. Then all the articles on the table are wrapped in paper, handed to the Master of Ceremonies, who wraps them again in a white cloth and, with a companion, goes to a designated place, where another fire is kindled into which he casts the package, first pouring alcohol over it, and then with what alcohol remains in the bottle, he raises his right arm and scatters it in all directions, praying the spirits to bless all the land between the two fires. The two return to the

CLARENCE'S ILLNESS—SUPERSTITIONS

waiting assemblage, report that the spirits have answered favorably, and in quiet reverence all bow their heads, cover their faces with their hands and remain silent for about a half hour. Then at each corner of the foundation, a hole is dug, into which is placed a small bottle of alcohol or *chicha*, a flat stone put on top and sealed with mud. Then the drinking and dancing commence, continuing all night. When the house is finished, a sheep, llama or alpaca is killed, the walls sprinkled with blood and a cross or several crosses fastened on the roof to keep all evil spirits away.

When the Indian builds a corral, he digs a hole at each of the four corners, puts in each hole a hoof of one of his animals, saved for that purpose, three leaves of coca, well sprinkled with alcohol, and covers the holes well with mud—his cattle now will not stray, get lost nor be stolen.

When an Indian kills a sheep or llama for meat for his own use, every bone is saved—even the dogs get none; the bones are tied up in a cloth with coca, sprinkled with alcohol, and then cast into the deepest part of a river; as the rains increase the volume of the river, so will their herds increase.

The condor, puma, jaguar and llama were the totems of the ancient tribes—now only the first three are given reverence; to hunt any one of the three is sacrilege. A white llama is sometimes sacrificed as a protection from lightning.

To meet a skunk or a fox augurs ill; but the flesh of a skunk will cure pneumonia. If a fox enters a mine, the mine will cease to produce.

A spider signifies joy, a white spider, great joy.

The left shoe placed on the breast of a sleeping person will cause the sleeper to divulge all his secrets.

To walk under a ladder will occasion domestic troubles.

The first tooth extracted of a child should be thrown in a rat hole, then the child will have strong teeth. One should never place a plate or a concave dish on a child's head or the child will be of small stature.

To be married on Sunday brings much misfortune to the new home.

To bite one's tongue involuntarily presages the death of a relative.

HIGH SPOTS IN THE ANDES

He who first enters the house where a death has occurred will be the next to die.

If one goes to bed thirsty, his head detaches itself and goes to the nearest water to drink.

If a rooster crows early in the night, someone will die.

If a dog does not know his master and barks at him, the master's death is near.

A snake in one's path presages misfortune.

Two or more swallows flying downward together foretell a storm.

When buzzards scream, there will be a hurricane.

The flesh of the viscacha ages, while the flesh of the condor rejuvenates the consumer; salt ages, while food without salt prolongs youth.

The owl brings bad luck; the dove presages misfortune.

A cat has seven lives, hence its flesh is highly prized to give vitality.

The blood of a bull, still warm, and especially from the chest, gives the partaker the vigor and strength of a bull.

Moths (night butterflies) called *alma kepis*, are carriers of the soul and should always be killed to avert misfortune.

Dreams

To dream of (the South American says dream *with*) a llama or sheep signifies the business venture will fail.

To dream of a corpse signifies money.

To dream of cooking, news of a death.

To dream of having a tooth extracted, death of a relative.

To dream of a negro, illness.

To dream of biting dogs, robbery.

To dream of a condor, success.

If an expectant mother dreams of snakes, she will have a son; of frogs, a daughter; of a condor, her son will be a great man.

Another superstition: When a girl is born, the midwife procures needle and thread and goes through the motions of sewing up the child's mouth—to prevent her from talking too much when she grows up.

Every flower has a signification; some are more potent



Main Cathedral in Cuzco
From its steps twenty-eight churches and chapels may be seen



Harvesting Potatoes near La Paz



Constructing Balsa in Bolivia, Lake Titicaca

ON OUR WAY TO SANTO DOMINGO

than others in averting danger, and some day I hope to gather enough information to give you a "flower-book," but this gathering "here a little and there a little" is a matter of much time and patience, but intensely interesting.

Now to return to our leaving Bolivia: on Friday, the thirteenth of July, 1928, we most reluctantly said good-by to the everlasting snows and shining glaciers among which we had been so comfortably domiciled for three happy years; even more reluctantly did we bid farewell to Amalia and Ernestina, who had served us so faithfully and so well—and I particularly hated to leave that cookie jar! If the car had not been so crowded, I certainly would have attempted to smuggle that cookie jar along! I turned back many, many times for another look at Chojñacota peak, at "our" beloved glacier and at those lovely lakes, as we descended on mules to the third lake, where the car was awaiting us. We had a carful: the Manager, who succeeded Clarence, our son, Lee, Mr. Othick, late Manager of the Calachaca plant, who was going to Santo Domingo with us as millman, Clarence and I, besides the chauffeur. We made quite a picnic of it, taking a bountiful lunch along and stopping at a most inviting place, where there was running water, to eat and to rest. I recall that as we were going through the rather large Indian village of Sica-sica, Mr. Othick remarked that he had been married in the big church there and, incidentally, he had not been to church since!

We arrived in La Paz in plenty of time for dinner and were warmly welcomed by our friends at the American Institute. Chojñacota's new Manager had the car overhauled and we were amazed to learn that our lives had been in serious danger from the time we started, for the brakes were in very bad shape and many of the car's "innards" were ready to collapse—and this was Friday, the 13th! The chauffeur was dismissed for his carelessness but the time required to repair the car gave Lee the opportunity to stay with us until we departed, for he was to return to Chojñacota to finish his contract. The time from Friday afternoon until Monday afternoon passed all too rapidly, what with passports to be

HIGH SPOTS IN THE ANDES

viséd, some extra little shopping to do, a Tea or two to attend and, of course, the Sunday market to visit, for I could never forego that Sunday Indian Market in La Paz, no matter how many times I had already "been present"; to me, it compares favorably with the marts of Alexandria, of Cairo, of Bethlehem and of Jerusalem—for brilliant coloring and bewildering variety of merchandise, it is in a class by itself.

Our train was scheduled to leave at two o'clock; we and our friends were at the station at one-thirty. The station at La Paz, as well as any railroad station in South America, is a colorful sight; it always seems as if the entire population must surely be there—and to check the crowding, a fee of ten *centavos* is charged everyone not holding a ticket of travel, to pass through the gates to the platform, but this charge does not seem to affect the crowds, who come to see their friends depart or arrive, or who just come.

A group of friends and I at once boarded the train, while Clarence with other friends looked after the baggage; we were early and you may imagine our astonishment when the train began to pull out before we had even seated ourselves. The women hastily left the slowly-moving train—our good-bys consisted of waving handkerchiefs and I couldn't even smile, for fear Clarence was being left behind. As the train took on speed, a conductor entered our car and to my frantic questioning, replied that I was on the first section, that the second section of the train would follow in a half-hour, that the two sections would reassemble at Alto, the summit; the train was too heavy to make the ascent, so had to be divided. When Clarence saw the train pulling out, he was as surprised as the rest of us but was, of course, at once told the "why-for." If we had but known of this shunting ahead, our friends could have ridden to Alto with me and returned to La Paz by auto, but as it was, I walked the platform at Alto by myself awaiting the three members of our little party: Clarence, Mr. Othick and Charley Patra, a mechanic, who was going with us, too, to get out of the high altitude "for good."

In less than three hours we arrived at Guaqui, the Bolivian

ON OUR WAY TO SANTO DOMINGO

port of beautiful Lake Titicaca, arriving just a little before sunset, but in time to see the numerous *balsas* floating like big birds on the lake, some with sails but the majority without, and a flotilla of these graceful, canoe-like boats, catching the last rays of the setting sun on quiet waters, presents a perfect picture indelibly photographed on memory's tablet. The *balsa* is a trim, long, slender boat made of *totoras* (reeds); these reeds are bound into bundles, also long and slender, with grass cords—the cords and reeds both gathered along the shore of the lake; the cords are tightened each day until the bundles of reeds are firm and dry; after ten days and sometimes as long as three weeks, the bundles are bound side by side and bent into the shape of a canoe. The sails are also made of reeds. The Indian handles the *balsa* very cleverly and I presume it behooves him to do so, for I have heard that very few Indians know how to swim. (A young Indian fell into the Inambari River at Oroya last winter and apparently made no effort whatsoever to save himself; an American woman was an eye-witness of the tragedy and she said he could easily have waded out, where he fell in, if he had even tried to get up but he evidently was paralyzed with fear; most of the Indians are said to be very much afraid of water but the few who do know how to swim and to handle boats are considered very good "watermen.") These *balseiros* are fishermen and they supply the fish market of La Paz; the fish are small, from six to ten inches long, but have a delicate, pleasing flavor. They are caught in nets, hundreds at a time, and are not at all expensive.

After but a few minutes' delay at the customs house, *aduana*, we boarded the good ship *Inca* and from its deck, we watched the big, round moon, bigger than a washtub, slowly ascend from behind Mt. Sorata, 21,300 feet above sea-level, 9000 feet higher than the lake; we saw the snowy peak of Juana Potosi become flooded with its silvery light, then lesser peaks stood out, cold and white, for there are seventy-five miles of snow-capped peaks bordering this lovely lake, steeped in legends and romance; and as we continued to drink in all this majestic beauty, even until the peaks disappeared below the horizon, Clarence and I audibly ex-

HIGH SPOTS IN THE ANDES

pressed our gratitude that we had had the good fortune to cross the lake by moonlight as well as on a "heaven-born" sunny day about a year previous. To our fellow-travelers we pointed out the Isle of the Sun, the legendary birthplace of Manco-Capac, the founder of the Inca Empire, and the Isle of the Moon, where his sister and wife, Mama-Ocillo, was born; we repeated the tale of how the two were told to found a city, the capital of their empire to be, by carrying a bar of gold between them, until it sank into the earth of its own volition; how they wandered for many moons until they arrived in Cuzco, where the gold bar disappeared into the earth. And we all regretted that the Conquistadores had so ruthlessly destroyed this wonderful civilization, many evidences of which are still to be seen not only on the islands of Lake Titicaca and in Cuzco but also in the vicinity of Santo Domingo, where we were going.

As the ship plowed its silvery way between these two islands, giving rein to all kinds of imaginative fancies, we did *not* voice the prosaic facts, that Lake Titicaca is the highest navigable lake in the world, that is, on which steamers ply at regular schedule, that it is 140 miles long, 60 miles wide and more than two miles above sea level; we did not even discuss whether the water was salt or fresh. (A tourist on a former occasion contended that its waters are salt, that every book he had consulted said so, and then he asked a member of the crew if the water was salt and the sailor obligingly answered yes! To counteract this, an American auditor, who crosses the lake often, affirmed that the drinking water on the boat was taken from the middle of the lake, that he was positive the water was fresh. Then, to make sure, when we landed at Puno, all four of us tasted the water—to two of us it tasted fresh and to the other two, slightly brackish!) But this night, all facts or arguments sank into insignificance in the glamorous moonlight, which enfolded the romantic setting of the Inca civilization—and we were on our way to a mine owned by the Inca Mining & Development Co., to a region steeped in Inca legends, and, if our dreams came true, we would be permanently located in this land so conducive to "thick-coming fancies"; we had



Sunset, Lake Titicaca



Lake Titicaca—Indian men have just returned from fishing.
Women wading out to see what luck they have had



Ruins of Inca Palace on Island of the Sun, Lake Titicaca



"Temple of the Virgins," Island of the Moon, Lake Titicaca

ON OUR WAY TO SANTO DOMINGO

started out on a new adventure for "weal or woe" and this night, at least, we were giving no thought to woe.

But, pray don't imagine that the waters of beautiful Lake Titicaca are always calm and unruffled: our friends, the Bells, on their last visit to Santo Domingo, were very seasick on their return to La Paz. A Pulacayo friend witnessed such a violent storm that, at first, she was fearful the ship would founder and then, as she became so wretchedly seasick she feared it wouldn't sink. Three "hard-boiled" sailors of a freighter, who had sailed "the seven seas" for seven years, were given a leave to visit La Paz, leaving their boat at Mollendo and were to meet the boat again at Arica; in crossing the lake, all three became deathly seasick and one of them almost did "pass out." Fortunately, when the lake is choppy, at least, it is not much more than a twelve-hour "run" to cross it.

Our little party of four arrived at Puno, the Peruvian port of the lake, about seven in the cold, cold morning—and it is always cold in the morning at Puno. Our baggage was superficially examined by the customs officials and we boarded the train for about an hour's ride to Juliaca, where we changed to the Cuzco train and in about two hours more we were at Tirapata, which owes its existence to the Santo Domingo mine, for it is little more than a group of the Company's warehouses and the resident-agent's home. I was amazed at the bigness of the Company's plant here, for there are materials and housing enough apparently to take care of all the mines in Peru.

Tirapata, 12,780 feet above sea level, on the wind-swept *altiplano*, is a dreary place; as far as the eye can see, nothing but a monotonous, level waste, very arid about nine months of the year and very wet the other three; immediately after the rainy season begins, grass springs up as if by magic and then the *altiplano* becomes the feeding ground of thousands of sheep and of many cattle.

We remained in Tirapata until the afternoon of the following day, for it was necessary to repack the five years' accumulated possessions, gathered "here a little and there a little" in Bolivia; two large tin-lined boxes remained untouched as they contained our "souvenirs" to take home,

HIGH SPOTS IN THE ANDES

but our wearing apparel, household stuff and a few "gimcracks" to make things "homey"—these had to be meticulously sorted, for we had been warned that at Santo Domingo "moths and rust do corrupt" and mildew is ever "around the corner." Santo Domingo is almost an even thousand miles south of the equator, a little over a mile high, hence about the altitude of Denver, Colorado; it is situated just within the border of the *montaña* or "Green Hell," so nearly all of our Bolivian clothes, all of our rugs, curtains and drapes are not suitable for the new home.

All of the baggage destined for the mine and we four people were bundled into the *camion* (truck) and we rode for four hours through a semi-arid, seemingly flat but constantly rising country to Crucero, where we remained all night. On this afternoon's ride we saw thousands of woolly sheep and countless llamas grazing on the plain; we saw many red-winged, cross-bearing flamingos, "57" varieties of ducks, many falcons (they looked so absurdly like dignified hotel waiters with their white vests and black "tails"), a large variety of geese, a few cranes and many, many other water-fowl, that we did not know.

Added to its altitude, 13,700 feet, Crucero also receives the full blast of the icy winds which sweep down from the Aricoma glaciers, hence it is very, very cold three hundred and sixty-five days of the year after sunset and until the direct rays of the sun appear in the morning, and, even then, one involuntarily seeks shelter from the wind. The stone hotel, built around a patio, has rock floors, bare, of course, and a fire only in the kitchen, where visitors are not only *persona non grata* but where you are hereby cautioned not to go (this holds for any hotel anywhere in Bolivia or Peru), if you are at all "squeamish" about how your food is prepared. Clarence went to the kitchen the following morning to get a pitcher of hot water; the pitcher was icy and the kitchen a long way across the patio from our room, hence by the time he returned the water merely had the chill off. I still remember how my fingers ached with the cold—and my toes—and how, piling on all the wraps we had, we shiveringly went to the frigid dining room for the typical South Ameri-

ON OUR WAY TO SANTO DOMINGO

can *desayuno* (breakfast) of coffee and bread to which were added eggs, at our request, eggs *pasado*, eggs "passed," passed through hot water, for they surely had not been in the hot water long enough to even heat the shells! One learns to ask for hard-boiled eggs and then they arrive about as you want soft-boiled ones. With our fingers, toes and noses tingling with the cold, we wriggled into the truck, but sitting in the enclosed cab with the chauffeur and with the sun ere long smiling ardently down on us, we were soon quite comfortable.

Shortly we came to beautiful Aricoma Lake, blue almost as the deep blue of Crater Lake in Oregon; we skirted along the edge of this lovely lake for seven miles, up to its source, the Aricoma glaciers; we have been "upping" ever since we left Crucero and in just a few minutes after leaving the lake, we are at the summit, 15,750 feet above the level of the sea, among the snow-capped peaks and but a stone's throw from the glistening, bluish-white glacier. If one hasn't *soroche* (mountain sickness), he will want to stop here to take pictures and to see the dividing of the waters, one part flowing to Lake Titicaca, the other to the tributaries of the Amazon and thence to the Atlantic Ocean.

From the time we left Crucero we have noted black, brown, white and spotted alpacas and llamas of the same colors; it is difficult for a newcomer to distinguish between the alpaca and llama but you learn that the alpaca has shorter legs and a shorter, stockier neck; the wool of the alpaca is much finer than that of the llama, hence much more valuable. The alpaca is not nearly so hardy and robust as the llama and, as far as I know, is never used as a beast of burden. Occasionally we saw herds, varying from a dozen to twenty-five or thirty, of vicuñas, the wild, deer-like cousin of the llama and alpaca, but always of the one color, a reddish-brown or rather tan; its wool is exceedingly fine, much finer than that of the alpaca, while its hide is highly prized for rugs to be used as a bed cover and I have seen very attractive coats made from its pelt. There is a penalty of five hundred *bolivianos* for killing a vicuña in Bolivia and a similar amount in *soles* for killing one in Peru,

HIGH SPOTS IN THE ANDES

yet in spite of this ban, vicuña rugs may be bought in the open market and many are smuggled out of the country; it seems to be more difficult to get a vicuña rug out of Peru than Bolivia, but even in Peru, a rug officially stamped may be taken out with impunity. As we descended from Aricoma, the rocks seemed to be fairly alive with viscachas, the grayish-tan cousin of the rabbit; its pelt, too, is used for rugs—it would take more than a hundred pelts to make a rug. Viscacha “fur coats” are beautiful too, but the “fur” is quite fragile or “sleazy,” the hairs falling out in a very short time, and for this latter reason, a viscacha bed covering is considered very unhealthy; the hairs have been said to cause blindness. The habitat of the alpaca, vicuña and viscacha is at or above 13,000 feet, so we see no more of them until we come “out.”

Huancarani, an even hundred miles from Tirapata, marks the end of the auto road; here the Company maintains warehouses and an agent's home, built of stone, all of the buildings under one roof of corrugated iron and with stone floors. Huancarani is but seventy-five feet nearer sea level than Crucero but it is sheltered from the icy winds which make Crucero so frigid; nevertheless, the rock walls and stone floors of Huancarani are not conducive to warmth; the only stove, as per usual, is in the kitchen, which, also as per usual, is some distance away from the living quarters, hence we plan to “make” Oconeque the same day, if possible. If we can leave Huancarani at noon or just a little later, the trip can be made to Oconeque leisurely, without the fear of nightfall overtaking us before we emerge from the deep canyon. I, for one, positively refuse to leave Huancarani after two P.M., preferring the discomforts of cold and crowded quarters (at one time seven of us were huddled into two tiny bedrooms, but this involves another story), and even preferring going through the motions of eating the inevitable spaghetti, to the nerve-racking experience of travel after dark through that long, narrow canyon with its sharp curves and deep precipices, which occur only too frequently on that trail—but I am anticipating. At Huancarani the baggage is transferred to pack mules and we wave good-by

ON OUR WAY TO SANTO DOMINGO

to our genial, ever-smiling Italian host, from the backs of our impatient saddle mules, that seem even more anxious than we to be on their way.

But, "Iva Gracious," with this letter already so bulky, I cannot begin that "famous Santo Domingo Trail," as I always "spill over" when I try to describe it, so in my continued next, I'll start in with that.

Love and the usual remembrances to all the "bunch."

CHAPTER IX

THE SANTO DOMINGO TRAIL

Santo Domingo Mine, June 5, 1932.

MY DEAR "IVA GRACIOUS":

Your letter dated May 22nd arrived in record time and my last "effusion" must have reached you in a little better than record time. Your so kindly expressed sympathy for my distressing plight when I heard the news of Clarence's illness is very dear to me and fully appreciated and while I am sorry that the recital of my worries, trials and perils made you weep, yet, my dear, that is true sympathy and I am increasingly grateful for the sincere, warm friendship that has been ours ever since we first met so many, many years ago and which we both "just know" has never wavered, although we have allowed many a month to slip by without an outward sign of awareness of each other's existence. I, too, shed copious tears again while I was recounting the events to you but that, of course, was mere self-pity, a thing to be everlastingly "scotched." Clarence is now well, actively engaged in trying to make up for lost time, and we are endeavoring to completely blot out that nightmarish experience.

But, Iva, my dear, you simply can't realize how thrilled I am at even the suggestion of a possibility that you and "Wag" may come to Santo Domingo; here's hoping with all my strength, heart and soul that the Alaska venture turns out much better than your expectations, so that in six months or so you will be on your way to this country, where 'most everything seems "topsy-turvy" and different: the sun shines from the north, our coldest month is July, the hottest, January; we go north to get warm and return 'south to cool off; instead of celebrating All Fools' Day on April 1st, December 28th is the day for childish pranks; here the people

THE SANTO DOMINGO TRAIL

say "white and black" instead of our "black and white"; one puts the clothes to *sleep* instead of to soak; if you want a cake iced, you tell the cook you want the cake with *bath*, if it is to have no icing, then it appears on the table without a bath; you dream *with* a person instead of him, which gave rise to the following "might have been" embarrassing situation: I do not recall whether I wrote you in one of those Pulacayo letters, that a recently arrived "schoolma'am" lived with us a couple of months, while her habitation was being prepared for her. The Manager asked us to take her for only a few days but the days lengthened into weeks and the weeks into months, before her house was ready, but we enjoyed having her and she helped me a lot in my Spanish. One morning at the breakfast table she calmly remarked that she had dreamed *with* my husband all night long! Startled, Clarence and I looked at each other and then fairly howled with laughter, much to Miss Gandarillas's amazement, and then I told her about those pesky prepositions, which I still contend cause much more grief and annoyance than the verbs.

In waving good-by down here, these people gesture *toward* themselves, while in motioning one to come, the hand is waved *away* from the gesticulator; one says, "No?" when he means yes; when a young man is courting his lady fair, he is "stripping the feathers off a turkey"; a woman is a bride when engaged to be married and ceases to be one as soon as the wedding ceremony is performed; the bridegroom buys the bride's complete trousseau as well as the engagement ring and a ring for himself, which are worn on the third finger of the left hand but are put on the same finger of the right hand during the marriage ceremony where they remain; if the man becomes a widower, he wears two rings! In the home and at parties, men are served first—it took me weeks to impress upon Marcelina that she must serve me before serving Clarence and to serve all women guests before serving the men; to a guest, a hostess invariably says, "My house is yours," and ofttimes you wish it were literally true, and once in a great while you are glad it is but a meaningless phrase; if one is especially extravagant, she is

HIGH SPOTS IN THE ANDES

said "to throw the whole house out of the window"; a girl gives a man the pumpkin instead of the mitten; unless a man wants more than one pair, he orders a *pantalon*—a friend of ours ordered a pair of *pantalones* from a tailor and was very much surprised to receive two pairs! "Milady" of South America almost invariably takes her breakfast in bed and rarely appears before *almuerzo* (luncheon); she is a charming hostess and is past mistress of all the social graces but punctuality is not in her vocabulary—she will make an engagement with you, say, at two o'clock, "*dos en punta, sin falta*" (two sharp, without fail), and meet you smilingly at four or perhaps not even come at all and yet she can reach you by telephone—it simply never enters her pretty head that time is of any value. But the Indian, on the contrary, is up at daybreak, in fact, I have been told that at a neighboring mine, the Indian is up at three, builds a fire and starts his *chupe*, and he is usually ahead of time, never late, in getting to work. There are many more, to us, odd sayings and peculiar customs among these contrastive peoples but it is these very contrasts and "differentnesses" that make a foreign country so interesting.

And I will come all the way to Mollendo to meet you, even come out to your boat and will take your picture as you descend the accommodation ladder, as you make the jump into the motor launch and again as you make the famous ride in the Mollendo landing chair—you will need the pictures to convince yourself what a scared look you have. It goes without saying that Clarence and I both hope you will find another "El Dorado" or another Santo Domingo right close to us.

Now to the description of the Santo Domingo trail: it must necessarily be a composite description of the many trips I have taken since that first one of July 19 and 20, 1928, for no one trip would suffice to gather in all these details. The first time I came over the trail, I was too scared at first and too tired toward the latter part of the trip to be able to register much; and this description cannot be called complete, for every trip, no matter how many previous ones, is an adventure; whether going out or coming in, each trip

THE SANTO DOMINGO TRAIL

will furnish one or more thrills, for there will be something different to see or something unusual will happen and no trip over the Santo Domingo trail can ever be commonplace. Hence, what I am attempting to tell you of the trail now includes impressions of the many trips I have taken over this trail in the last four years.

Iva, I am confident that in all the wide world there exists no trail which surpasses this one from Huancarani to Santo Domingo for greater variety of scenery, of climate and of altitude; that is, in a trail of forty-five miles, which is the approximate distance between the end of the motor road to the Santo Domingo mine. And I hope if I am tempted to put Q.E.D. at the end of this long recital, you will agree that I am justified in doing so.

Usually we leave Huancarani in a blinding snowstorm, a heavy downpour or in a drizzling rain and only occasionally in bright sunshine. Huancarani has an elevation of 13,625 feet above sea level and is situated among the bare granite peaks of the lofty Andes—in less than five hours we are among orange trees at Oconeque! Oconeque is a little more than 6000 feet high, hence there is a drop of more than 7000 feet in the little more than twenty-three kilometers (about fourteen miles) and that drop is not only precipitous and “twisty” but it is breath-takingly beautiful as well. The trail from Huancarani to Limbani, about one third of the way to Oconeque, is a leisurely ride of an hour and a half, but it takes fully an hour longer in ascending from Limbani to Huancarani; the mules are already tired from the steep climb from Oconeque, the air is steadily growing rarer and to me, this last lap of the trip seems interminable; in the many times I have been out, I always forget to count the curves and, as I look ahead, I invariably hope the next curve is the last one and there will be ten more, perhaps, before the huddled buildings of Huancarani gladden my impatient eyes. This last lap of the trail is hard on the mules, too, and just recently while a Government inspector was returning from an official visit to our Bella Pampa power plant, his mule fell dead at the same instant the inspector dismounted—the mule had succumbed to *soroche* (mountain sickness).

HIGH SPOTS IN THE ANDES

The road (it is almost one) from Huancarani to Limbani is wide in most places and offers no special thrills; it needs but a few gigantic boulders to be dynamited out of the way and a little widening here and there to make it fit for motor transportation and how glad I shall be when this is accomplished! Some work has been done to this end, off and on, but more "off" than "on." It will, indeed, be a luxury, pure delight, to get into a car at Limbani, lean back comfortably and forget all about those unnumbered curves, while it will be a "super-delight" *not* to have to stop at Huancarani, *not* to have to eat the inevitable spaghetti, but to motor directly to Tirapata—what a pleasure that will be!

In the comparatively level stretch where Huancarani is situated, the stream, sometimes called Aricoma, from the summit which we have recently crossed, meanders placidly along for, perhaps, a half kilometer, then it gathers momentum and we wind in and out around points of rock, losing sight of the stream, and when it again comes into view, it is a rapidly moving current and long before we reach Limbani, it has become a raging torrent; at Limbani, an Indian village of about an hundred souls, the stream is called the Limbani, retaining this name until Quitun is reached, whence it acquires the name of Quitun and it remains the Quitun until it is lost in the Inambari at Bella Pampa, which marks the confluence of the Quitun and the Inambari and where the Company's new power plant is located. All along the route, the water is augmented by innumerable waterfalls and side streams, until at Sagrario, the foot of the renowned Bandarani heights, the once purling brook has become a mighty river.

Almost at once after leaving Huancarani we wind in and out around huge, gray granite boulders, some as high as thirty feet, and many of these boulders contain tiny holes at their base, drilled there for the dynamite which is to blow them into tiny fragments and then the fragments are to be smoothed out of the way for the long-hoped-for automobile road. At rather close intervals we pass groups of Indian huts of stone, with thatched roofs of grass, each group surrounded by fences of stone, and near each group are patches

THE SANTO DOMINGO TRAIL

of plowed ground, plowed with a pointed stick—man, woman and child each contributing his labor while the baby, too young to help, is “parked” within the enclosure; these small patches for potatoes and, farther down, for corn as well, have deep zigzag ridges for irrigation and are also rock fenced; many of these little patches are on such incredibly steep mountain sides that you wonder how the seeds ever stay “put”; sometimes these *fincas* (farms) are close to the river and again they are perched high above the trail. It is interesting to note how ingeniously the Indian has bridged the now turbulent Aricoma-Limbani stream: several of the bridges consist of but one huge slab of slate thrown across the foaming water, with the approaches neatly “cobblestoned” to meet the slab; one artistic bridge is arched, the rocks fitted in as carefully as if they were cemented.

At Huancarani there is nothing but stunted grass but soon tiny white flowers with no stems are seen; apparently they are blooming from the rocks themselves—this same little flower grows in Chojñacota, 15,600 feet above sea level and also without stems. Seemingly scapeless dandelions appear, no larger than a dime, gradually growing larger as we descend, until at Limbani they have become great splotches of gold, big as a teacup. Small shrubs become larger, stunted trees grow bigger, blackberry vines are very much in evidence; soon there is a wealth of dainty buttercups, glorious marigolds, bright sunflowers—yellow is the predominating color but occasionally one sees short-stemmed honeysuckle of a rich red color and deep-blue lupin and some cosmos of various colors. Limbani is in sight some little time before we enter the village, in fact it spreads out lengthwise almost a half kilometer; it boasts hot springs, whose mineral or curative properties have not yet been determined and the enterprising citizenry collected donations from Santo Domingo and I presume from elsewhere with which to build the swimming pools; the pools still lack roofs and judging from the few people we meet in Limbani’s one street, the pools are lacking patrons, too.

Immediately after leaving Limbani, the vegetation becomes more luxuriant, the path becomes narrow and occa-

HIGH SPOTS IN THE ANDES

sionally one must dodge overhanging vines and branches of trees; a cactus with a very pretty pink blossom becomes alluringly plentiful but you will not need to be told twice to leave the blossoms strictly alone—I picked one and the sharp barbs penetrated my heavy riding gloves, inflicting wounds which were painful for several hours! We got strong whiffs of mint—this particular locality must be especially adapted to mint, for its agreeable odor greets one at any time of the year. The ascent of the Limbani hill is not steep but laborious and at the summit is a large wooden cross. It seems to me that every summit in Bolivia or Peru has not only a cross but a huge pile of rocks—every Indian in passing adds another rock, so the pile continues to grow; but the crosses appear not only at the summits but very often at irregular intervals between the summits; the frequency of them is strikingly apparent on “La Fiesta de la Cruz,” May 3rd, when practically every cross is gayly decorated with the brightest flowers obtainable. Usually the cross marks the last resting place of some *accidentado* (one who has been killed by an accident) and these crosses are about as effective “danger signs” as can be designed. The descent of the Limbani hill, however, is “something else again,” so steep that all “tenderfeet” and a good many “hardened” ones dismount and walk. On a sunny day, at your right you can see the deep gorge cut by the Limbani River, while at the left, far below, is a comparatively large meadow, a carpet of rich green studded with dandelions, marigolds and other golden-yellow flowers; I am quite sure that at any season of the year, although there are many varieties of multicolored flowers, as well as the yellow ones, yet on this stretch from the bottom of the hill to Huancarani, the yellow eclipses all the other colors.

Once when Lee (of course, you remember that Lee is our son) and I were coming up the Limbani hill—it was Lee’s first trip to Santo Domingo—his mule fell prostrate in the trail. It was a foggy day, the fog so dense, one couldn’t see fifteen feet ahead and we had the monthly payroll with us. What to do? It was useless to return to Limbani as Limbani has no telephone service. Of course, Lee removed the saddle

THE SANTO DOMINGO TRAIL

from the fallen mule at once and we both thought the mule was "out for keeps." We decided to put the saddlebags, containing the money, on my mule and that I should ride on until I met Juan, the trail rider, who had left Oconeque to meet us as soon as he had been apprized of our arrival at Huancarani. Was I scared? I shuddered at every bush or rock, from whence I expected to see a bandit emerge, flourishing his revolver and demanding, "Hands up," while at every curve, I was fearing a whole gang of desperadoes. Just riding alone in that thick fog was enough to frighten me, but when I began the descent, I forgot all about the payroll or "hold-ups." It was my second trip "in" and I remembered the descent as terrifying, with long series of steps cut in the rock and the trail switchbacking so that one could see the extremely precipitous flights of steps ahead, but this time the dense fog prevented my seeing what was coming next, adding to my terror, and the drizzle had made these break-neck declivities slippery. So I held the reins taut and clung to the saddle.

I rode all of three kilometers in this panicky silence before I met Juan at the bottom of the hill—it wasn't silent all the time either for I called, "Juan, Juan," several times to give me courage and with the vague hope that my calling might hurry him up a bit; however, he did not hear me and was so astonished to meet me thus alone that I had some difficulty in getting my message over. But when he finally comprehended that Lee's mule had fallen by the wayside, that I had come on alone with the payroll, then, in true South American fashion, he first complimented me very highly for being so "*valiente*," then told me to continue riding across the Agualani River and to continue until I crossed the little bridge near the quinine farm, where I was to await Lee; that he would give his mule to Lee and we two could then proceed to Oconeque, and that he would try to procure a mule in Limbani and perhaps overtake us. I schooled myself for a long wait and was most agreeably surprised to see both Lee and Juan come riding across the little bridge, scarcely a half hour later; Lee's mule had had an attack of colic but recovered shortly after I left so he

HIGH SPOTS IN THE ANDES

resaddled her and met Juan about two thirds of the way down the hill.

It is not until we reach this quinine farm, that the vegetation becomes tropical; then as you round the next curve, you have the sensation that you are riding directly into the jungle. The change is so abrupt, you feel that a magic wand has brought forth this profusion of wonderful pink begonias and their velvety beautiful leaves cause you to exclaim with delight. As you drop down, the pink takes on a deeper hue and the leaves become even larger; gorgeous fuchsias "hit you right in the eye," hanging down in such opulent clusters that they seem scarcely able to bear their own weight, and there is such an outpouring of bleeding-hearts that your own heart almost stops its beat in admiration. Here pinks and reds predominate but not always—the prevailing color changes with the seasons, or shall I say the time of year? for there is so little variation in temperature the year around that season seems a misnomer; what was once a riot of pink in a few months may be all purple.

Sometimes, but not on every trip, always in October, you will be charmed with the deep-red amaryllis or belladonna lily, which grows two on a stem—the lily that is nurtured so tenderly in our hothouses, grows wild and relatively abundantly on this trail. There are lovely petunias, the graceful cosmos, phlox in white, crimson, blue, purple and lilac; the dainty lady's-slipper, provided with no sparing hand (metaphorically, however, more like a 3DD size than milady's 6AAA); Canterbury bells of many shades and the cobalt-blue harebells; and intertwining among bushes and trees the prolific morning-glory of blue, striped blue and white and of a deep red. Growing on a vine, but not so prolifically, are the prettiest pink balls, which remind me, every time I see them, of the pretty clover blossoms I once had on a favorite hat, one of those wide-brimmed droopy hats, a Leghorn. There is lupin and there is larkspur aplenty; lilacs, too, and a flowering tree whose blossoms are dark purple similar to the bougainvillea; a sprinkling of mock-orange blossoms and an enormous number of flowers whose names I do not know, many of which looked strange,

THE SANTO DOMINGO TRAIL

nearly all beautiful but a few actually hideous to my northern eyes.

But of all the flowers I have mentioned, the begonias are preëminent, acres and acres of them, if one can imagine an acre without width, for these flowers and trees and bushes, apparently fighting for the privilege to live, grow on such precipitous heights that you are aware only of length and the dimension, width, becomes non-existent. Returning to Santo Domingo once in early May, I saw such an exuberance of the lovely pink begonias, intermixed with the white, feathery, dainty flowers, somewhat like sweet alyssum, that I said to myself, "Here are more than enough shower-bouquets for all the brides in Peru this day."

But for fragrance, the exquisite, fair Madonna lily is supreme; on this May trip, the trail repairers were cutting out the protruding branches and overhanging vines—it was the end of the rainy season, when the brushing out of the trail starts and continues until the next rainy season and you filled your lungs with the delightful odors of lilacs, of orange blossoms, of lilies, of violets and of new mown hay—a redolence of sweet smells that could not be duplicated anywhere in the wide, wide out-of-doors.

Even if there were no blossoms at all, the unusual, the remarkably beautiful foliage makes a trip to Santo Domingo worth while: leaves, varying in size from a tiny baby-tooth to one that would not go into a large washtub, the serrated leaf, truncated, petiolated, cancellated—all the "ateds" of a botany textbook, cornuted and latticed or what will you have? Then the almost endless variety of coloring: yellows, russet brown, soft red, the tender green of early spring deepening to almost black. Vines are multifarious and omnipresent. As to trees, it would take an arboriculturist to give the names of all the trees but I hazard a guess that the palm tree with its "57" varieties is the most numerous, and almost every tree is encumbered with curious vines or parasites. You will see, invariably out of reach, rare orchids of many hues and sometimes a ravishingly beautiful orchid with a monstrous yellow parasite resembling an ugly toad on the same tree; the orchids choose the most inaccessible trees from

HIGH SPOTS IN THE ANDES

which to flaunt their beauty. Peru is noted for its orchids—the choicest orchids of the world have been found in Peru. At a recent orchid show in Miami, Florida, a Lima, Peru, citizen, whose hobby is collecting the orchids of Peru, carried off every prize! We transplanted some in our front yard and strangely enough they grew—and are still growing—and quite semi-occasionally we grace our dining table with a bouquet of exquisite orchids.

And the ferns! They simply beggar description—you may have your choice from the tiniest, delicate maidenhair fern up to the gigantic tree fern; merely one trip convinces you that a *specialista* on ferns alone would be able to label them all, there is such a bewildering variety. There is one little, dainty one, whose name I would like to know—it resembles a cluster of tiny green stars, the whole cluster no larger than a child's thimble. And the mosses! I confess right now that I do not know the difference between a moss and a lichen, but what I call moss here is the prettiest, velvety stuff in soft greens, reds and browns, cushioning the rocks to a depth of eight or ten inches, perhaps even more. I have been told that the poor people in Germany gather moss, tear it apart, dry it in the sun and then use it for stuffing mattresses but while the poor folks down here have tons and tons of this wonderful moss, all theirs for the picking, yet they don't know what mattresses are, as I have learned to my discomfort. (We had to seek refuge one night in an Indian hut and the bed consisted of a pile of rocks, or rather a bench of rocks with a few sheepskins thrown on top.)

I am sorry I cannot tell the names of more flowers and I am still sorrier that I didn't study botany more assiduously in my "salad days," and sorriest of all that I have almost forgotten what little I did assimilate. A botanist would need a score of assistants and even so, I am sure it would take a long, long time to classify only the lilies, or the ferns, or the orchids, etc.

Very shortly after passing the quinine farm, we descend steeply a pathway hewn out of slate cliffs, the rock above overhanging; the miners call them half-tunnels and there



Macho River Indians Carrying Log for Santo Domingo Mine



Huancarani—End of Auto Road.
Passengers and cargo are transferred to mules

THE SANTO DOMINGO TRAIL

are miles and miles of these half-tunnels, not continuous but at irregular intervals, and they are the most permanent part of the trail, for being cut out of solid rock, they do not slide and slip off into the river below as many other parts of the trail have done and which some are still trying to do. The trailing vines and overhanging branches get into one's eyes, showering one with water, and these half-tunnels drip copiously even in the driest season, hence I always tie my slicker on the saddle in front, so I can don it quickly. To one's right is a sheer precipice, sometimes several hundred feet above the rushing stream, and again the trail winds down to almost the river's edge, ascending steeply again, and around such sharp curves, one wonders if the mule can make it and soon learns that a mule can turn on a dime and leave a nickel for change! At the very steep places, you would like very much to dismount but there doesn't seem room enough on the cliff side, while, of course, the precipice side is out of the question, not only for fear of stumbling headlong over the cliff, but the mule might object to your dismounting on the "off" side; hence, you grasp the reins tightly, confident that the mule doesn't want to go over the precipice either, and to bolster up your courage you begin repeating Psalms, the Twenty-third around a short, bare precipice, the Ninety-first when a longer "scary" stretch looms in sight, and any other Psalms you may know in between.

Escorting Mr. and Mrs. Stretter over this trail about a year ago, darkness overtook us before we had climbed out of the canyon and not one of us had a flashlight, not even a match. I was extremely nervous, knowing the dangers of the way and feeling the responsibility of conducting our guests safely to Oconeque. I stayed on my mule as long as I possibly could—it seemed hours to me since I first wanted to dismount—for I had been told many times that it was safer to be on a mule after dark than on foot, but when it became pitch dark and even the mule quivered as we rounded a curve, I decided I would put my trust in my own feet and calling back to the others, I told them I was dismounting, so they did likewise. By crowding close to the

HIGH SPOTS IN THE ANDES

cliff, "keeping in touch" with it most of the time, we gropingly descended. I knew that Flores, the trail rider, would send an Indian to meet us and he did, but when the Indian attempted to apply the match—he had but one—he found there was no oil in the lantern! Fortunately it was only about a half hour more until we haltingly emerged from the canyon; there was an Indian hut at the summit of a small hill to the right but it could not provide us with either oil or matches, but the sympathetic owner rigged up a lantern made of a candle stuck in a tin can and he lighted the candle from the still glowing embers of the fire with which the evening *chupe* had been cooked. No 100-watt electric globe was ever more welcome and I am sure that candle was more tenderly guarded than any electric globe ever was. Mrs. Stretter and I remounted, for we were very tired; the Indian who had brought the lantern but no oil and but one match, led my mule, Mr. Stretter that of his wife, while the Indian who had accompanied us from Huancarani took care of Mr. Stretter's mule and the two cargo-mules. It is but a ten minutes' ride from the "Good Samaritan" Indian hut, down a very steep hill, over a small wooden bridge, a few feet more down hill until we reach the first suspension bridge (two small ones that we have crossed do not "count"). And so Mrs. Stretter had the unforgettable thrill of crossing her first suspension bridge by candlelight; the roaring of the black, swirling water beneath the swaying, lurching bridge—the faint glimmer of light allowing one to see white foam as the river tumbled headlong over the huge boulders—augmented the thrill, but she was a good sport and walked across apparently unafraid.

These suspension bridges have no railings, and are made of five-foot hewn planks, long-wired together and slung on cables, three underneath which carry the major weight, two suspension cables on either side and four coming at right angles from the stream to the center of the bridge, thus making a surprisingly steady structure; yet they sway sideways and up and down—leading one's mule helps to minimize the vibration. Personally, I have never minded crossing the bridges at all; to me, they are as nothing compared

THE SANTO DOMINGO TRAIL

to the dizzy heights, and "familiarity has bred contempt," *almost*, for the lofty escarpments. Yet I do not care to be reminded of "The Bridge of San Luis Rey" when on one of these suspension bridges for it was not so very distant from this region that that bridge collapsed with such disastrous consequences to all the travelers on it; however, such a wholesale disaster could not occur on a Santo Domingo bridge, as only one person is allowed to cross at a time. Excessively timid persons have been permitted an escort, and two persons leading a mule does minimize the swaying appreciably, provided the people walk out of step. There are nine suspension bridges in all, one a few minutes before we reach Oconeque, four between Oconeque and Quitun, another but a short distance beyond Quitun, often called the "Monkey bridge," because we occasionally see monkeys here, the first monkeys on the trip; a short bridge that crosses the Sagrario Creek, at the foot of Bandarani, and but a few minutes before we arrive at Sagrario; then the ace of all the bridges, the one that crosses the Inambari at Oroya, and the final one which bridges Santo Domingo Creek, about five kilometers from the mine.

Normally, I think it takes about two hours, more or less, to ride through the shady, damp, but always beautiful canyon between the quinine farm and Oconeque. There are many birds, but due to the dense foliage, it takes a practiced eye to see them and I will write you a lot about birds later. In the many trips I have taken back and forth, I have seen but five snakes on the trail and someone has always had the start of us and killed those snakes. But butterflies, ah, myriads of them and a later letter will "spill over" about butterflies.

Oconeque, the Company's roadhouse, provides quarters for its employees going out and coming in and permanent quarters for the mules, and is also the Company's source of supply for fresh vegetables and much of its fruit. Oconeque, a group of stone buildings in the midst of a forty-acre, relatively flat and cultivated area, is an always-welcomed shelter, a haven looked forward to, whether "going or coming," for man and beast are well taken care of; a mule

HIGH SPOTS IN THE ANDES

needs no further urging when within a kilometer or so from Oconeque and tired man "perks up" a bit in anticipation of the chicken dinner with all the "trimmings" awaiting him. If not too tired, the "inner" man satisfied, you will enjoy strolling through the really lovely garden and the well-kept orchard, but most of all you will enjoy a clean, comfortable bed with real springs and real feather pillows.

In the garden are carefully cultivated plots of corn, beds of cabbage, of cauliflower, tomatoes, lettuce, celery, carrots, beets, *acelgas* (our spinach or its twin sister), squashes and what not, nearly all the temperate zone vegetables; by rotating crops, we have fresh vegetables the year around. Recently we had our first taste of rhubarb in South America: the seed was sent from the States and Flores, our "mayor domo" of Oconeque, planted the seeds, which grew so rapidly that Flores was amazed; he did not know "pie plant" so Lee showed him which was the edible part and also cautioned him not to let the rhubarb take the whole garden. I myself showed Blanco, the cook, how to prepare the rhubarb for the pie, and never before in South America, *entre nous*, was a pie so enjoyed or so extravagantly praised.

The orchard contains oranges, lemons, citron, peaches, papayas, granadillas. The granadilla resembles the pomegranate somewhat but is yellow or greenish-yellow; the seeds are surrounded by a tart, green jelly; if you have no spoon, swallow the seeds and jelly whole, about as you would manipulate a raw oyster; it is very refreshing on a hot day. The flower of the tree is very beautiful, decidedly exotic, called the passion flower, is blue outside, white and purple inside; it is called passion flower from its resemblance to the crucifixion: the stigmas represent the nails of the cross, the anthers, the wounds, while the rays of the corona are the crown of thorns.

Oconeque boasts another even more exotic flower than the granadilla—a green rose! A rosebush of green roses! Page "Believe-it-or-not-Ripley"! I never heard of a green rose before, have you? I will bring some to you, not only that, but, if possible, I will bring some cuttings, and we

THE SANTO DOMINGO TRAIL

will see what we can do for St. Patrick's Day, for they are real, genuine roses.

If it is your first trip to Oconeque, you are probably too tired—muscle-weary, eye-weary and yes, even ear-weary—to be at all interested, even in passion flowers or green roses; muscle-weary from the unaccustomedly long time in the saddle, eye-weary from seeing so many things new and trying all the time not to miss anything, while your ears feel they could not stand much more of that continuous pounding and roaring of the Limbani River. The balmy air of Oconeque is also conducive to sleep, hence shortly after supper you are off for a deep sleep of ten hours or more, yet you feel sure you have slept but a few minutes when you are called at five-thirty, at dawning, for another day's muleback traveling. If it is not raining, it is well to have your slicker handy, not only for the half-tunnels, which are at closer intervals and also much more "drippy" in the stretch between Oconeque and Quitun, but it is almost sure to rain before the day is ended.

A few minutes of riding below Oconeque, one sees the first banana trees growing wild—the stalks of whose fruit hangs upside down in our grocery stores and markets; the trees have leaves six to eight feet long and from twelve to fifteen inches wide, while the stalk of the tree itself ranges from two to six feet and even more. The foliage, all the vegetation, becomes yet more tropical in appearance—we are now riding in the *montaña* (literally, mountains, but as here used, means thickly wooded or the jungle), aptly named, "Green Hell"; the huge-leaved plants become even more huge, the lush vegetation has become indeed "jungly." In the hour and a half's steep descent to Quitun, one must cross four suspension bridges—the trail could go no farther on this side, so perforce the river was bridged and then that happened again on the other side; four times up and down and across, and this fourth bridge is not the longest but it is decidedly the "swayiest" and the trail over this stretch was made possible only by blasting the way through solid rock almost, but not quite, continuously.

Quitun is a coffee plantation and on our first trip coffee

HIGH SPOTS IN THE ANDES

was being dried in the sun in front of the large "barny" house of the *hacienda*, or I presume I should call it *cafetal*: I have never lost my admiration for the manner in which words are coined in Spanish—*cafetal* for coffee plantation, *platanal* for banana plantation, *piñal* for pineapple farm—of course, you will gather that *café* is coffee, *platano*, banana and *piña*, pineapple. On the tree the coffee bean is in a bright red pod, surrounded by a juice which is quite sweet. There are coffee trees on both sides of the river and the only means to cross the river, that I saw, was a single cable with a basket on a pulley, just like the cash baskets in a department store, only larger and not so "fancy"; the coffee is thus transported from the far side of the river to the side we were on, and all the laborers propel themselves on this cable, and after seeing this self-propulsion above, high above, that turbulent, foaming river, I would have been ashamed to be afraid to cross a suspension bridge with its five-foot wide, solid planking beneath my feet.

There are approximately one hundred and fifty acres in this coffee plantation but if one were to draw a map of it, it would be practically all length and very little width. The mountain rises so abruptly back of the *residencia* of the coffee plantation that it seems even a llama could not retain a foothold, yet it is terraced and cultivated and "they say" there is quite a grazing region on the summit. One is constantly amazed at the steepness of the mountain sides, as constantly wonders at and increasingly admires the ingenuity and what must have been the tireless efforts of the Incas in subduing this precipitous and almost inaccessible country, and is most astonished of all that their work has been so permanent.

Our narrow trail through the *cafetal* is rocked up about four feet high on both sides, while the trail itself is paved with rocks and one must be constantly guarding against overhanging branches of the coffee trees; the whole plantation gives the impression of great neglect, for the trees have not been pruned for many years. Our path leads steeply down to a rushing side stream, whose bed at our crossing has been securely paved with boulders and a sort of parapet has been

THE SANTO DOMINGO TRAIL

built also of boulders, where the stream falls precipitately five or six feet on its mad rush to join the Quitun River; there are times when this creek is a raging torrent, sometimes impassable for several hours; even when only knee-deep, it is comforting to know the parapet is there, thus allaying one's fears of being carried over the precipice—the boulders in the parapet are spaced wide apart and not too high so the water does not form a deep pool. Now we cautiously guide our mules over a stretch of loose shale, about one hundred and fifty feet of these shifting, treacherously moving rocks, some as small as pebbles and others as large as a dining table; this spot has been the occasion of many a landslide, causing delays of passengers, of mail or freight, from a few hours to a whole week; the whole mountain side seems to be bent on sliding into the Quitun River.

After about an hour's descending, around sharp curves, through half-tunnels, splashing through innumerable waterfalls, we come to a section of the trail that winds steeply down hill in steps cut in the rock and around a point, very narrow, where the river actually undercuts the trail and the steps slope outward towards the edge! Opposite, the high smooth rock-wall of the mountain is inclined over the river and, looking up, you can see but a thin line of blue sky. We are so close to the mad rapids that the roar of the pounding water is deafening—the "white caps" tear and tumble over gigantic granite boulders; this is the most picturesque, the wildest, the most awe-inspiring part of the whole trail; what a setting for a Zane Grey novel! We climb out of this inferno of noise and roar and in a very short time we breathe a sigh of relief as a relatively large space, "the wide, open space" compared to the narrow gorge we have just left behind, is "untwisted" before us; we usually stop here for lunch on our way out and to allow the mules a few minutes' respite before tackling the heavy upgrade just beyond; also from here is the beginning of the declivitous ascent to famous Bandarani, the ace of dizzy heights.

I often wondered why the trail was built so excessively high and recently I was informed thus: Bandarani means the "place of the flag" and when the American Company first

HIGH SPOTS IN THE ANDES

took over the Santo Domingo mine the Manager sent Mr. Yungling as surveyor to scout a trail along the Quitun River; he climbed *down* from the ridge to set this flag where he could see it from either side for a long distance—he wanted to be sure that he remained in the Quitun valley, or rather I should say canyon, and if you ever see the multitudinous, knifelike ridges in this section of the high Andes, you will understand why the flag was necessary to assure him that he was still in the same canyon. He had no intention of putting the trail up to that flag; he was called away from this work and some time later a road crew with a native boss was sent to build the trail, and the boss had the men work up to this flag and then, perforce, they had to work their way down again! A row of graves, each marked with a wooden cross, is a mute and ghastly reminder of the loss of life which this sector of the trail entailed; it is said that the life of eight men was snuffed out by a single landslide and these eight men have no crosses. There is no record of the total death-roll which this trail has cost and perhaps it is better so.

We laboriously climb up and up and up, from about fifty feet above the Quitun River until we are more than three thousand feet still higher up, so much higher that the ever-increasing pounding of the river can scarcely be heard at all—its resounding uproar becomes a mere murmur. For more than an hour, the trail seems to hang like a narrow shelf in front of us and it is not well to look too far ahead, for the dizzy height of what appears a tiny, long thread to travel over is not conducive to comfort. I am always pleased when the precipitous “down” side is covered with vegetation, for although I know I am riding along a sheer precipice, yet I can look down into the tops of trees with more equanimity than down into space; when a bare precipice looms into view, I bethink myself of a Psalm and I used to keep my eyes glued to the “up side” of the trail, occasionally allowing myself the thrill of glancing down at the toy river below; however, now, while still thrilled, I can really enjoy the thrills without feeling those little tremors of dread running a gamut up and down my spine. And I am still glad

THE SANTO DOMINGO TRAIL

when the trail begins to descend, for then I know the worst is over.

But we descend so steeply that all but the most seasoned travelers dismount; looking ahead you wonder how the mule can retain his equilibrium over those sharply pitched switchbacks, over those steps cut in the rock, but a mule has never fallen over the cliff along here—higher up and on the summit of Bandarani, several mules have been hurtled to a mangled mass far below but each time a mule has gone over the cliff it has been due to the crowding of other mules in the pack train. Almost never have I ridden over Bandarani without meeting a mule train; a rider always takes the inside of the trail and usually there is no difficulty in passing, but occasionally we have had to turn back several rods in order to find space enough for the bulkily laden mules to pass us. Generally we dismount, leading our mules as closely against the mountain side as it is possible to do, so with much yelling of "*Mula, mula*" and with plenty of maneuvering by the *arriero* (muleteer), the mules are brought safely past us, then this always-exciting episode over, we jog along until we hear the tinkling of the bell on the bell-mule or perhaps see another mule train in the "offing" long before we can hear the bell, whereupon the same procedure is enacted.

The descent to the sixth and rather short suspension bridge which spans Sagrario Creek seems very brief compared to the toilsome, steady grind of climbing to the summit, yet on going out, this too becomes quite a climb. Sagrario Creek, a tributary of the Quitun, currently reported to be rich in gold-bearing gravel, is but a stone's throw (a lengthy one, though) to the public roadhouse, Sagrario; if it weren't for the mud, and the trail is always muddy here at any time of the year, it is not worth while to remount for in a moment or two we are at this hospitable inn, where Natalia, its widely known hostess, is indefatigable in her efforts to please. She has a well-cultivated *chacra*, which provides feed for the mules, and a variety of fruits and vegetables for her "other" guests; her specialty is "Fresco," a delicious, cool drink made of the juice of pineapples, oranges, lemons and papaya or, which is my favorite, the juice of pineapple alone,

HIGH SPOTS IN THE ANDES

which she beats with an egg beater, first adding just a little sugar, until it looks very much like a delectable ice-cream soda and which I have named, "Pineapple delight." Pineapples grow practically the year round at Sagrario, hence pineapple delight may be enjoyed as long as the egg beater holds out. Our first two years here we always hurried through Sagrario, stopping only to say "*Saludos*" and to enjoy a fresco, if already prepared, for we felt impelled to "make" the mine going in or Oconeque in going out, but now I look forward to staying over night at Sagrario, which makes the journey much less arduous and does away with that uncomfortable, "I must hurry" feeling.

Almost exactly a league farther on, following the right bank of the Quitun River, the trail slopes gently downward until we arrive at Bella Pampa, the lowest point of the trail, 3150 feet above sea level, and which also marks the confluence of the Quitun and Inambari Rivers. In this drop of considerably more than ten thousand feet from Huancarani to Bella Pampa, in a day and a half's muleback trip, I have tried to give you an idea of the variety of scenery, of climate and of altitude; we have come from the high, wind-swept, barren granite rocks of the Andes through temperate and semi-tropical sections to Oconeque and from Oconeque quickly into the tropical *montaña* or "Green Hell"; the transition from the hardy, scapeless dandelions and stemless buttercups to gigantic tree ferns and huge-leaved plants is absolutely startling; the flowers of gorgeous hues, many of them unfamiliar, seem almost unreal; what few birds we see are of vivid, bright-colored plumage; the myriads of butterflies are of all the colors of the rainbow and then some, a few of them as large as saucers (these of iridescent blue and gold) while the smallest is about the size of a violet and also that color. We were freezing at Huancarani, neither too hot nor too cold but just "right" at Oconeque, while long before we arrive at Bella Pampa we have discarded all wraps and are grateful for every bit of shade which the trail may afford. Have I demonstrated the three propositions, so that I may now "justifiedly" add Q.E.D.?

THE SANTO DOMINGO TRAIL

At Bella Pampa "our" company has a new 540 H.P. hydro-electric power plant. It was begun many years ago during Senator Emery's régime; all the parts were assembled but the construction and its final installation awaited our coming. The whole plant is underground. The tunnel which conveys the water from the Quitun River to the plant is one-half mile long, while the discharge from the "big wheels" flows again into the Quitun about three-quarters of a mile farther down the stream from whence it was taken. It is the only plant of its kind in Peru and was put underground on account of the constant danger of landslides.

And if this plant had not been underground, it would have been completely demolished last April, when there was an enormous landslide, which wrecked the house and office, built at the entrance of the short tunnel which leads to the "works." Muto San, who had not quite finished the installing of the plant, barely escaped with his life—his second hairbreadth escape from death at Bella Pampa; the first close shave occurring when the Company's house in which he was living was swept into the rapidly rising, tumultuous, swirling black waters of the Quitun, shortly after midnight and he had to jump out of a window, which, fortunately, overlooked the road, where the water was still shallow; there was no other means of exit.

But in the awful landslide last April an Italian, a tourist, who with a companion was on his way to Maldonado to finish "doing" Peru and thence to the Amazon, was instantaneously killed, while his friend sleeping in the same room, in a bed next to his, was unhurt; two of Muto's assistants sleeping in the same house were badly hurt, one of them being pinned under *débris* so that it took several hours to extricate him, and these two men were so nerve-racked that they had to be transferred to other work. A Subprefect was also visiting Muto that night and the two men were sleeping in one room; neither can explain his almost miraculous deliverance from death. Muto says his first recollection of anything at all was that he was *under* his bed and then, remembering the Subprefect, he called to him

HIGH SPOTS IN THE ANDES

and he, too, was under his own bed! They made their way out through the *débris* and with the help of all the men in Bella Pampa rescued the men who were still in what was left of the house—entire trees, roots, trunks, branches and all, were jumbled up with rocks, boulders and dirt. Of course the lights were extinguished and the telephone was put out of commission but word was sent at once from Oroya, only a mile distant, to Santo Domingo advising the doctor of the tragedy and of the wounded and he immediately left for the field of disaster, while as soon as it was daybreak a large crew came down from the mine to help clear away the *débris*. And while the doctor was taking care of the wounded at Bella Pampa, a miner had his leg crushed by a falling boulder in the mine, and the doctor had to amputate the leg as soon as he returned from Bella Pampa. Such a chapter of accidents! This all occurred while Clarence and I were on our way home from his “sick-leave” and when we arrived at Bella Pampa, almost a week later, the trail was still choked with rubbish and we had to ride in the river bed and then climb strenuously to get back in the trail.

Generally, Bella Pampa is another haven of rest and refreshment. The man in charge, having been notified by telephone that we are coming, “tips off” his wife, so a delicious *almuerzo* is awaiting us; soup, for soup is served twice a day everywhere in Bolivia and Peru; chicken or duck (and ducks “do” exceedingly well in this wet country), potatoes or yucca, sometimes both, lettuce and one or two other vegetables; always fruit for dessert, pineapples, bananas and papayas being “in season” throughout the year. We always have plenty of *paltas* (alligator pear or avocado) when in season and a salad of *paltas* is as satisfying as a hearty meal. But while the refreshment may be “long,” the rest is short, for we are so near home that we want to be on our way.

A short half-league over the pampa (Bella Pampa signifies beautiful pampa or flat) and we are at the ace of all the suspension bridges, the famous Oroya bridge, 359 feet long, swinging like a rope high above the Inambari River. At the Oroya end of this bridge is a gate, over which a toll-

THE SANTO DOMINGO TRAIL

house is built, for the trail from Huancarani to Santo Domingo mine is privately owned—only Government officials and Santo Domingo employees have *pases libres* (free passes). The toll gatherer is also inspector, for it is his duty to search all suspects and their cargo for contraband gold as they are going out and to search for alcohol on suspects coming in; he also telephones the office who and at what time anyone is crossing the bridge—if the traveler is a merchant, the inspector informs the office what wares he has to sell and if the store is already overstocked with such wares, the merchant is advised, thus saving him an unnecessary trip. With telephonic connections at the mine, at Oroya, Bella Pampa, Oconeque and Huancarani, we are kept in fairly close touch with all movement on the trail. Knowing exactly when a traveler leaves a certain station, if he does not arrive at the next station within a reasonable time, the man in charge of this station sends a scout out to investigate. The toll is one *sol* (forty cents in normal times) for a mounted or *carga* mule; a half-*sol* or fifty *centavos* for a mule without saddle or cargo; eighty *centavos* for a burro with load; fifty *centavos* for llamas with cargoes; thirty *centavos* for a cow, twenty for a sheep, twenty-five for a person on foot with a load. But all the tolls pay but a very small fraction of the cost of the upkeep of the trail.

Shortly after leaving Oroya we round a curve and see a grayish-muddy creek—that telltale color which denotes mining operations farther on; we have come to Santo Domingo Creek and the pollution of that once joyous, care-free stream reminds one of the North Pole story: had the Pole been of gold, it would have been discovered centuries earlier; and so, I presume, the waters of Santo Domingo Creek would still be crystal clear, if gold had not been discovered at its source. The trail is now narrower and several friends, who have come to Santo Domingo a number of times, insist that the trail from the mouth of the Santo Domingo Creek to the mine is the most picturesque, the most “untamed” part of the entire trail. It ascends gradually until we reach the Santo Domingo suspension bridge, the ninth and last one—it seems the highest of all and appears as a thread swaying

HIGH SPOTS IN THE ANDES

high up in space, but it is one of the short ones. It was but a short distance from this bridge that a woman was supposed to have pushed her husband over the cliff, and later married the "younger and handsomer" man, who first relieved the husband of his gold before the wife gave him the fatal shove.

From the Santo Domingo bridge the trail is almost literally "straight up"—the difference in altitude between Oroya and the mine, 3500 feet, is comprised almost entirely in the last three miles. A mere few hundred yards from the bridge, we pass through a very short defile and immediately to the left is a well-defined path to the Tunquipata power plant, which is situated but several hundred feet below in the Alta Gracia gorge. We follow the precipitous mountain ridge on the right side of the Santo Domingo ravine, climbing to heights which almost rival Bandarani. The mine is just below the top ridge, the last ridge before entering the Amazon Basin, but before we see this top ridge we enter a large curve, almost a semicircle, which to me is the loveliest of all spots of the entire trail; very nearly at the center is a wonderfully beautiful waterfall, whose waters cascade almost perpendicularly from dizzy heights above, splash over the culvert and fall vertically several hundred feet to mingle with the onrushing waters of Santo Domingo Creek. As we enter the twilight in this curve, for the sun never penetrates within its tips, and hear only the musical cadence of the murmuring, falling water and see the graceful ferns, the exquisite, the flower-like mosses—in this dim stillness, one can readily imagine himself in another world, in a dream-world, a fairy grotto; and yet, what do you think the Quechua Indians have named this enchanting spot? "*Supay Puncu*"—Hell's Gate!

Very shortly after emerging from my fairy grotto—I will not call it "*Supay Puncu*"—we see the huge tanks of concentrates, the mill and a few other buildings, but distances are deceiving and there is a good half hour's strenuous climbing before we dismount "for good." We are told that there are nine tanks, each twenty-four feet high and sixteen feet in diameter—thus each has a capacity of 57,500 gallons; mul-

THE SANTO DOMINGO TRAIL

tively 57,500 by nine and you have the storage of the tailings from the mill and these tailings, by means of a cyanide plant and a furnace, are expected to yield a goodly sum of gold. Of course, the tanks had to be brought in in sections, but if they were carried in on Indians' backs, as they very likely were, their cost of transportation must have taken a goodly sum of gold as well. When you are almost opposite the mill, its "innards" can be plainly seen, for it is a "stair-steps" building has a galvanized iron roof, or better roofs, but no walls—the weather is warm throughout the year and hence it does not need to be enclosed; but at Chojñacoq-br-r-r—it was so cold that it was a problem to keep not only the men but the machinery as well from getting "froze up."

After getting a glimpse of the camp, we are too anxious to reach our destination to pay any further attention to abysses, narrowness of trail, or to splashing through waterfalls, for from the time we have left Limbaní, it seems a kaleidoscope of a jumbling of ridges, peaks, gorges and waterfalls; and looking back as we approach Santo Domingo, we see a succession of knifeblade ridges, which you know are separated by profoundly deep gorges and I, for one, breathe a sigh of relief that I am not expected to traverse all those stupendous ravines. But this last bit of trail does require our undivided attention—innumerable slides have wiped out the trail and each time the trail has been dug back into the trail itself. This entire mountain side, like that near Quitun, seems determined to plunge headlong into the stream below.

On the occasion of our first trip "in," Santo Domingo was brilliantly lighted for our reception and never before in all my life were lights so welcome. Muto San, the Japanese electrician and general factotum since the mine had been closed down, some four years previous to our coming, met us at the turnstile and smilingly (his smile is renowned throughout southern Peru) conducted us to our new home—and our life in Santo Domingo began.

Now, my dear, I hope I have described the trail so that its beauty and charm far outweigh any impressions of fear or

HIGH SPOTS IN THE ANDES

weariness; that the thrills of grandeur and gorgeousness exceed those of terror or nervousness.

P. S. I read somewhere recently that the Arabs have a legend that when God made the world, he put all the stones which were to cover it into bags and gave the bags to an angel; while the angel was flying over Palestine one bag broke, hence Palestine is so stony. If this same angel had been flying over this section of the world much later, for we are geologically much younger than Palestine, and of course the bags would have become much older, I am quite sure at least a dozen bags broke and some of those stones are still standing on end!

CHAPTER X

THE SANTO DOMINGO CAMP

Santo Domingo Mine, August 13, 1932.

DEAREST IVA:

Again I am happily surprised by your prompt reply and I am simply overjoyed, brimming over with joy, that you are more eager than ever to come over the Santo Domingo trail yourself and that you think the prospects are good for a speedy fulfillment of that most ardent, mutual wish of ours—here's hoping those prospects become a reality "pronto," the sooner the better, and what a "talk fest" we shall have!

Naturally, since you are planning to become a member of our "Camp of Optimism" shortly, you would rather have me tell you all about the camp first: our camp is relatively small, from 350 to 400 on the payroll, which seems small compared to the 1500 in Pulacayo, while Chuquicamata perhaps has three or four times as many as Pulacayo. Santo Domingo is the most compact of any of the camps I have lived in—building space is at a premium and the land here is terraced for buildings, just as the Incas terraced it for agriculture. Houses are perched on every available space and oftentimes, more often than not, rock-walls are built along the sides, and at times on all four sides of the building, to make the foundation more secure. There are houses for five Gringo families—one double or should I say "duplex" house and an "apartment" house for three families. "Casa Santo Domingo," the boarding house, has accommodations for eight employees of the "white-collared" type, four more rooms for lesser employees, while the first cook has quarters off the first-class dining room, the second cook from the second-class dining room and the other servants are housed on the bakery floor.

HIGH SPOTS IN THE ANDES

As Muto San had had complete charge of the camp during most of its last "shut-down," he was living, when we first came to Santo Domingo, in the manager's house, "La Gerencia," as it is designated here, and as we were merely *optionistas*, he did not take the trouble to move out but conducted us to the left half of the double house. The first thing that attracted my eyes was the great number of windows, thus assuring all the sunshine available, and the longer one lives in this excessively humid country, the more appreciative he becomes of every ray of sunshine. (Our first record of the rainfall registered 273 inches for the year.) Muto had had the house thoroughly cleaned and, believe it or not, after almost four years tenantless, almost every window of this house had presentable curtains. What with the curtains, freshly laundered, the profusion of bright flowers, each bouquet tastefully arranged with lovely ferns, and with the brilliant lighting, our temporary quarters gave a very inviting appearance and that first impression has remained with me, so that now, when I am expecting guests, I fill the rooms with flowers and turn on all the lights, for all our guests from outside usually arrive about dusk. I was too tired for more than a cursory inspection that first night, but I went to bed feeling that our life in Santo Domingo had begun most auspiciously, for among the flowers on our dressing table was a stuffed, beautiful blue bird with a slip of paper in its bill, on which was typed: "Mr. and Mrs. Woods—WELLCAME." The blue bird for happiness, its yellow breast signifying the gold we had come to delve for, the warm reception, and at the very last, this quaintly expressed "WELLCAME," all augured well for the future.

After a refreshing, deep sleep, I was ready the next morning to satisfy my curiosity: I found that this home as well as all the Gringo homes had cement floors and corrugated iron roofs, and rock-walls; we had five rooms, bath of cement and a homemade toilet—the very large sewage pipe led directly to the deep canyon as do the pipes from all the Gringo homes, and it was this that gave rise to the name of "Garbage Gulch," and it still seems a pity to me to dub such a really beautiful canyon, abounding in tree ferns, lovely flowers and

THE SANTO DOMINGO CAMP

variegated foliage, with such an opprobrious title, a title which I fear will cling as long as Gringos dwell in Santo Domingo. However, these large conduits obviate any plumbing troubles, which may compensate a little for the un-beautiful nickname. There was a smattering of furniture, all homemade, too, except four rocking chairs from the United States, very likely from Michigan. That there was any furniture or any curtains left at all was an agreeable surprise in a country noted for its pilfering. However, six sewing machines (Singer, of course, for I have not seen another make in all South America), nearly all the wash-bowls and pitchers, even parts of the good American cook-stoves and an incalculable amount of household necessities and "gimcracks" as well, had disappeared—I say incalculable advisedly, because, with the exception of the inventory of supplies in the warehouses here and at Tirapata, even the inventories had disappeared! In justice to Mr. Muto, I must add that all this stealing took place before he was given charge. I was pleased to see a sewing machine at the *almacen* (store) but when I had occasion to use it we found only the frame left—the whole works had been neatly removed.

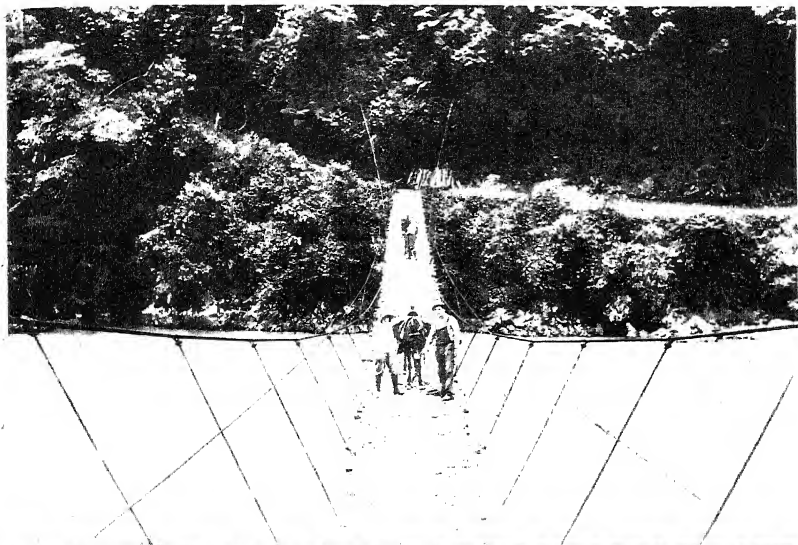
The other half of the double house contains a real porcelain bath but all the others are "Roman" (they "roam" over a large part of the bathroom), cemented baths without the marble finish. The ceilings are of *tocuyo* (native muslin) stretched tightly from wall to wall and held in place by narrow strips of wood about three feet apart; when we moved into the "Gerencia," this *tocuyo* had been varnished but I thought that darkened the house, so I had it replaced by the white muslin. But I quickly regretted the change for the bats above soon spotted the whiteness—but more about bats anon. Every Gringo house has its fireplace, for hot as it may be during the day the evenings are always cool, but more than for the coolness, one needs some heat to counter-act the pronounced humidity; but again on account of bats, I had my fireplace sealed up and I still use only electric stoves.

That first morning on stepping out of my house (Clarence had risen hours before and was already marshaling his forces

HIGH SPOTS IN THE ANDES

while I still slept), I was amazed to note a deep precipice not six feet away on my left, while a lesser one confronted me but a few yards ahead; I hastened around to the rear to discover a steep hill abruptly limiting the back yard and the other half of the double house circumscribed the space to the right; verily, verily, gold was more plentiful than building space in Santo Domingo! But after the barrenness of the mountains, magnificent as the landscape of Chojñacota is, the omnipresence of the greenness, the lushness and "jungliness" of the mountains here more than compensate for the lack of "the wide, open spaces"—and I was soon to learn that this house had the biggest front yard and the only back yard in the whole camp! I descended seventy-seven steps—I counted them—to the road, or rather trail, which leads to the Casa Santo Domingo, the boarding house for unmarried employees and destined to be our dining room for all the years we have been here; we call Casa Santo Domingo "hotel" for short but it is a misnomer as we have no paying guests; it is, I should judge, about three city blocks from "Seccion Flor de Mayo" (Mayflower Section), as the Gringo section has been named. It is a gradual ascent all the way but there are no steps; to the left is a sheer precipice of about a hundred feet down to the narrow-gauge track below and to the right is an almost perpendicular mountain side, several hundred feet high—I presume it is needless to say that this trail has been cut out of the mountain side. For several weeks in going to and from Casa S.D., I hugged the hillside but now Clarence says I have gone to the other extreme and he cautions me from venturing too close to the almost vertical "down" side of the cliff.

Casa Santo Domingo is a very large, two-story frame building with a very wide veranda on two sides; its front, facing the offices, store, *botica*, etc., thus has a double-decked porch and the upper porch serves for the movie screen, while the spectators sit on the porch, at the same level, of the store, with reserved seats inside of the store for the Gringos, which is an ideal arrangement for movies: the Indians and Cholos thoroughly enjoy the pictures and the sensitiveness of the "white collars" is not offended by the



Mr. and Mrs. Woods crossing one of the nine swinging bridges
on the way to Santo Domingo Mine



Rear of Casa Santo Domingo at Right



Santo Domingo Camp



Delving for Gold in the Santo Domingo Mine

THE SANTO DOMINGO CAMP

"great unwashed." At Chojñacota we once allowed a movie to be given in our living room—just once; it took us three days to air the house. Here we have movies every other Sunday night, or as they say, "One Sunday, yes; other Sunday, no." Thus both the day and night shifts are given the same opportunity to see the "repertoire," which is limited to Charlie Chaplin in two comedies and which never pall, no matter how often shown, to Louisa Fazenda in "Dizzy Daisy," to "Daddies," Lindbergh, a Rodeo at Pendleton, several animal pictures, a lot of "Felix" and quite a few local pictures to which we are constantly adding. The local pictures are enjoyed the very most—the working people, like the upper classes, do love to see themselves in the movies. I shall never forget the first movie ever given in S. D.; many of the spectators had never seen a movie—and it was infinitely more interesting to watch the faces and the reactions of these folks than to watch the pictures; they didn't seem to grasp what it was all about until a "close-up" of Clarence was thrown on the screen—then they shouted, "El Gerente, el Gerente," and for the first time realized that they were looking at pictures of real people. With a phonograph and now a radio to furnish music, we have quite a "Roxy" theater and I am reasonably sure that Roxy's has never had a more "mixed" nor absorbed gallery.

Casa Santo Domingo has two kitchens and two dining rooms respectively for the "first-class," where we and the unmarried members of the staff eat, and for the "second class," where from fifty to sixty workmen, those without women, eat. Clarence wants to inaugurate a third-class dining room, by building an addition to the hotel, for the "raw" Indian, who comes to work with just enough supplies of dried mutton, dried potatoes, toasted corn and, of course, coca to last three weeks, at the end of which time he quits to return home and then comes back to the mine with another three weeks' supply. Clarence's idea is to give board free to any Indian, who works continuously for three months: with better food, the Indian would work better and, what is more important, would stay longer, thus avoiding the continual turnover.

HIGH SPOTS IN THE ANDES

Casa Santo Domingo is built on a huge bench or terrace in the mountain side and looking up at it from the narrow-gauge track far below, it seems to be most precariously perched on an inadequate base, but it is the oldest building in camp and has withstood many a "stress and storm"; directly opposite, separated by a very narrow "street," is an extremely long building of stone, partitioned off to house warehouses, store, offices and the bookkeeper's living quarters; the bookkeeper has a peephole for inserting a gun, in case anyone should tamper with the safe. In close proximity, but under separate roof, is the *botica* and doctor's office, all in one.

At the north, or warehouse, end is a small patio, where the mules and llamas are unloaded; in the far corner of this patio is our far-famed jail, a small stone structure with barred windows and a heavy door; in it we put "high-graders" for the few hours that it takes for their families to "pack up" and "beat it" down the hill with the malefactor; but if the culprit is found out late in the afternoon, then he must stay all night in the *carcel*, for it would be endangering one's life to send anyone down the hill after dark. This prison was also the last home of a crazy Negro workman, who became a raving maniac after imbibing too freely of Independence Day spirits at Bella Pampa; he was brought up here to the doctor, who put him in the *carcel* and thoroughly searched him, for he had tried to kill himself at Bella Pampa and had tried to jump off the Santo Domingo bridge on the way up to the mine. Shortly after noon the following day, he slashed his abdomen wide open with a case knife, brought with his dinner, and which he, with a madman's cunning, had concealed in the room; he lived until the following morning. This jail also housed the mail robbers—you remember I wrote you about losing the December 30th mail, which was unusually heavy and which undoubtedly contained much Christmas mail, the loss of which I am still lamenting; one of these two robbers escaped from the prison but was apprehended before he had gone fifty yards, so our Peruvian engineer made some ingenious stocks, and ever since, any recalcitrant prisoner is put in the stocks.

THE SANTO DOMINGO CAMP

On the road that spirals up to Camp One, the summit of "our" ridge, is our garage, containing a truck, purchased two years ago with the idea of hauling timber for the mine; but excessive rains, followed by innumerable landslides, have made an auto road impractical, hence the Indians are still carrying the heavy timbers on their backs, sometimes for miles.

At the third curve, high up to the left, is the cemetery; there was but one lonesome mound when we arrived, the last resting place of a Gringo, who fell over a cliff. The cemetery, previous to our coming, was situated at the right of the incoming trail, before one arrives at the mill; landslides are no respecters of persons, either alive or dead, and one solitary grave now marks the spot of that once populous "dead city." Now near the American's tomb in the new cemetery, is that of another foreigner, a Japanese, a friend of our doctor's, who came to Santo Domingo to die, that he might have Japanese rites at his funeral. There are thirty-five mounds now in our "God's Acre," all but two with crosses. One of the thirty-five is that of an *accidentado*, who was instantly killed by a falling boulder in the mine. Most of the others are of babies; I have written you of the appalling infant-mortality in Bolivia and I believe Peru has the unenviable reputation of being even worse, at least according to recent statistics. Once, when some friends and I were returning from a long hike, we met a funeral procession, the small coffin being borne by four men and followed by a large concourse of men, women and children; the coffin was open full length, which seems to be the custom here and the lid is nailed on after the brief rites at the grave. The corpse was that of a man child, four years old, and was dressed in a bright plaid robe, red predominating; on inquiring, I was told that he was dressed to represent some saint but whether the saint of his birthday or of the day of his death I was unable to find out, nor if all the children and adults were thus clothed. Primitive people are extremely reticent, particularly about anything pertaining to their religion or superstitions. Santo Domingo has no church nor chapel nor priest but many an Indian has come to Santo Domingo to die in

HIGH SPOTS IN THE ANDES

order that he might be buried in a box instead of a sack; coffins are made in our carpenter shop. The mourners carry lighted candles and there always is an abundance of flowers and a short burial service is read at the cemetery by some volunteer, usually the President of the Club, and Clarence says the services are simple but quite impressive.

Whenever a priest or *cura* is coming to Santo Domingo, the camp is notified and any marriage or baptism ceremony is hurriedly arranged for. I have not seen a marriage ceremony performed here but recently we had a wholesale baptism: a *cura* from Maldonado sent a courier ahead that he would arrive in S. D. a few hours later and that the parents of all babies to be baptized should be apprized of his coming. He arrived on a Sunday about five in the afternoon, tired and hungry, so the *sereno* notified the fathers and mothers to bring their babies to Casa Santo Domingo at six-thirty and we set our dinner hour ahead to accommodate the *cura*, who was a Dominican priest, appeared to be an ascetic, but was very affable and agreeable; he was accompanied by an acolyte, a "Chunco" (wild or uncivilized Indian), who had become a convert to Christianity and had learned to speak a little Spanish.

Eight babies, with their fathers, mothers, godfathers and godmothers, arrived on time and what with our "family" of sixteen, the baptistery (billiard room) was filled to overflowing—in fact, the men of our family overflowed into the porch outside and later to the cinema above. (Clarence held up the movies, so the *cura* could attend, for he showed the pictures of his trip down the Inambari, of Maldonado, where the *cura* has his headquarters, and the trip out from Maldonado to Astillero, a journey by canoe of nine to twelve days, traveling all day and sleeping at night on the shore, wherever night overtakes the party. Ofttimes the tired sleepers are awakened to move their beds higher up so the rapidly rising river (Tambopata) will not engulf them—this has occurred three times in one night! Every passenger must provide his own food and shelter. But there are thrills as well as weariness and inadequate food on every canoe trip up or down this river: there is still danger from the Chun-

THE SANTO DOMINGO CAMP

cos; canoes have upset with disastrous consequences, entailing loss of life and always loss of all the cargo; the prowling wild animals while on shore are another source of danger, and huge water snakes are often seen. No wonder the *cura* was tired and hungry!)

I was very much interested in the baptizings. Our Peruvian engineer's Chilean wife acted as the *cura's* secretary, writing the names of the babies, of their fathers and mothers and those of the godfather and godmother, and if the baby was legitimate or natural—and of these eight babies, only one was legitimate! The *cura* brought the consecrated oil but we "Santo Dominicans" scurried around for the font (basin) to hold the water, for the candles, salt and a white cloth. There were seven distinct procedures:

1. The *cura* made the sign of the cross on the forehead, mouth and chest of each baby.

2. He put salt in the mouth of each baby (every baby cried).

3. He put consecrated oil on the top of the head, on the chest and back of each squirming youngster.

4. He sprinkled water, and plenty of it, on each child's head.

5. "I believe" is repeated three times by each godfather, with a lighted candle on each side of the head of the child.

6. The priest admonishes each godfather of the solemn obligation his godfathership entails; the godfather assumes the responsibility of looking after the spiritual welfare of his godchild and if its parents should die, he must take the child into his home and take care of it as if it were his own.

7. The white cloth of purification is passed over the head of each child.

Now, these are the significations: 1. The sign of the cross on the forehead sanctifies the thoughts; on the breast, the affections; on the mouth, the words that proceed therefrom. 2. The salt in the mouth is symbolical of wisdom. 3. Oil on the head, breast and back is to give strength to fight the battles of the soul. 4. Water on the head signifies the purification of the soul through the grace of baptism. 5. The credo of the Catholic Church. The lighted candles signify

HIGH SPOTS IN THE ANDES

the light of faith, that should guide the steps in the path of virtue. 6. This is self-explanatory. 7. The white cloth signifies the new life which the baptism should bring and to endure throughout life.

You will admit the symbols have beautiful and inspiring significations, but if each baby had not tried its "darnedest" to out-yell all the others, if the weather hadn't been so hot—the perspiration rolled in continuous rivulets down the beatific but harassed face of the hardworking *cura*, the happy mothers, the proud fathers and even the honored godparents showed the strain—if the room had not been so suffocatingly crowded, the whole ceremony would have perhaps been more dignified; but in spite of all these handicaps, it was solemn and impressive. Early the next morning the *cura* baptized four more but he was just finishing when I arrived for breakfast—and a little eight-year-old girl brought her precious little doll to be baptized!

All the bins in the warehouses, the shelving and counters and even the showcases in the store, all the office furniture, including filing cabinets, the "fixtures" in the drug store, everything was made here and some of it is quite "classy"; what with sawmills and lathes and artisans, who love to do ornamental work, and what with the great variety of choice lumber, furniture and "fixtures" become a matter of individual taste, and tastes have differed in the thirty-five or more years of Santo Domingo's existence.

Around a sharp curve to the left from the "jail-patio," about six city blocks distant, are the groups of frame houses for laborers and their families; each family has one room and a kitchen—the houses are in "apartments," from two to six families to a house. Most of the wooden houses were so badly deteriorated they had to be replaced and it seems that we are always building houses for the workmen, that there never is enough housing. Casa S. D. is more than twenty-five years old. It, however, is constantly being repaired—a rotten board being replaced by a new one—so that if an accurate accounting had been kept, the hotel has been rebuilt several times. Five years seems to be about the limit of a

THE SANTO DOMINGO CAMP

frame house's life. All lumber is made here and as there is no time for seasoning, wide cracks soon appear in the walls, and these added to the ample windows assure the laborer plenty of fresh air. Our newspapers and magazines are very much in demand for papering their houses—the Sunday supplements of the *New York Times*, the *Saturday Evening Post* or other magazines with pretty pictures naturally have the preference and you would be most agreeably surprised at some of the artistic effects, while some others are decidedly the reverse. While the houses are not equipped with running water, yet there is a hydrant for every apartment house; they have electric lighting and at irregular intervals an inspection is necessary to see that some *minero* hasn't rigged up an electric stove. If a family has more than three or four children, the house may seem a bit crowded but, unless it is raining "cats and dogs," the whole family, including cats and dogs, is out of doors anyway—but I must amend that last statement and make it just dogs, for cats are conspicuous by their absence. I have heard that cats are highly prized as food, hence their scarcity; but there is an abundance of canines—when they become superabundant, some fine morning there are quite a number of dead dogs, mysteriously poisoned, that have to be carted away. I have learned not to be too inquisitive but I can't help but wonder if it is a mere coincidence that our doctor always has had to respond to a night call before these mongrels were summoned to "dog-heaven." Much effort is expended in trying to keep the camp clean and sanitary—the doctor makes daily rounds and any family whose premises are not "up to the mark" is duly warned and a second offense usually means expulsion.

Beyond "Alta Lima," as the natives have named their section of the camp ("High Lima" to distinguish it from the capital, which, you know, is at sea level), there is a deep canyon, where the laborers' camp was formerly situated; the mill used to be beyond this camp and this little *playa* (beach) in the canyon is currently supposed to be very rich in gold—sometime, I presume, Clarence will have it "placered." From the eminence of "Alta Lima," one has a magnificent view of a large part of the camp and also sees

HIGH SPOTS IN THE ANDES

the water pipe at intervals, where it is supported by scaffolding as the pipe extends through space across some wide ravine. The main source of water supply is a spring, the water being conducted to a large, screened-in reservoir, from whence it is piped throughout the camp; the water is so pure that it is not necessary to distill it for laboratory work.

Directly back of the hotel and about thirty-five steps lower down, is a relatively large plaza, containing the "Casa Azul" (Blue House), a large frame structure which houses the unmarried shift bosses, head carpenter and such; in this plaza are other groups of buildings, also for unmarried workmen—in all, I should think there are about fifty living here. Nearly all of these laborers eat in the second-class dining room of Casa Santo Domingo. From this "Plaza de la Casa Azul" you may have your choice of going on down 250 steps more to the narrow-gauge railway or retracing your steps to Casa S. D. and down the stepless trail to the other end of the track, which is almost exactly a quarter of a mile from the entrance of the mine. The first few days here, I made this "round trip" for exercise but a painful knee developed from the unaccustomed "plugging" down 285 steps and short breath made the climbing laborious, so I have contented myself ever since with walking "along the line of least resistance"; however, on this imaginary trip of inspection, I will take you down the steps to the mouth of the mine, but just to the mouth, for to enter the mine is strictly "verboten" to all women folk.

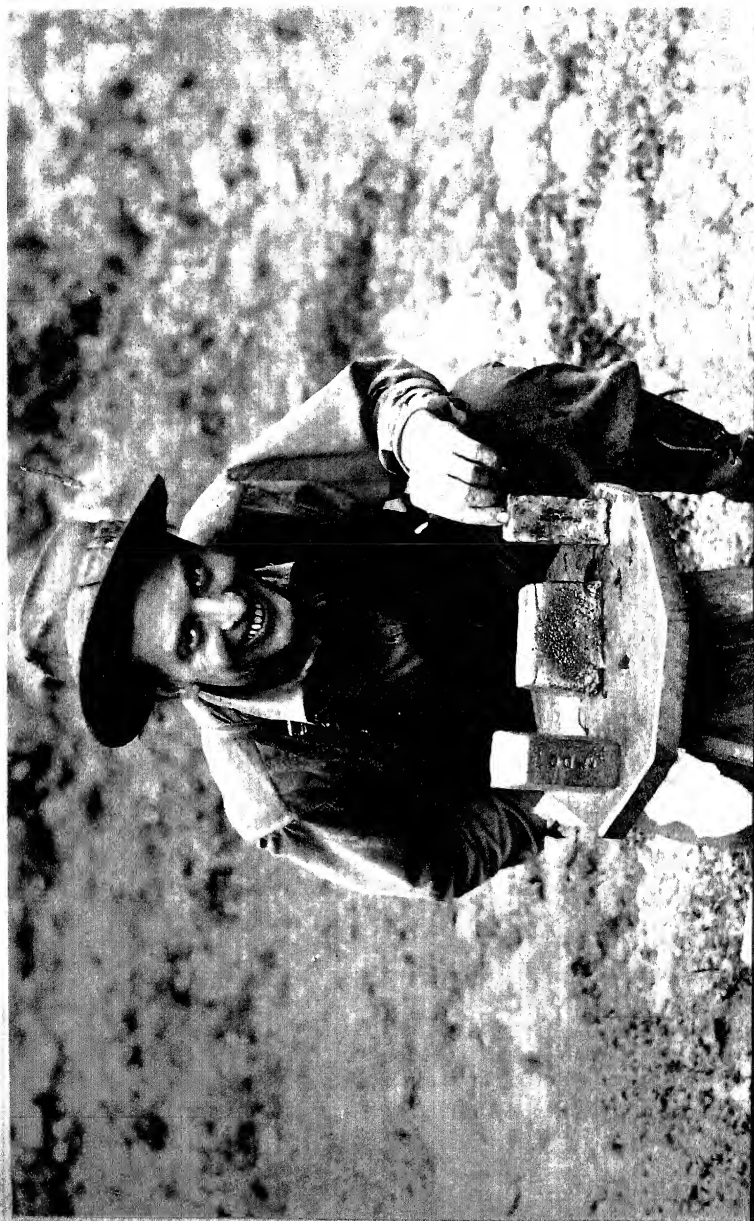
At the left of the mine entrance is the "change-house," where all workmen are required to change clothes on entering and again on leaving the mine; the inspector's office, in the change-house, is so situated that no one can enter or leave the mine without being seen; the change-house has four shower baths of hot or cold water; long rows of pegs for the men to hang their clothes and long benches for the men to sit on. At the extreme far end of the change-house are rooms for the inspector, but the fleas were so bad that a charming little house was built for him on the hillside just above the mouth of the mine and now the inspector can sleep in peace. Our present day inspector is an Italian, who has



The "Daily Eggs" — amalgam — put in retort,
ready for distilling off the mercury



The big "clean-up" that paid for the mine



"The mine is paid for!"

THE SANTO DOMINGO CAMP

cultivated every available inch of ground, growing corn and other vegetables, bananas and many flowers; he also has a "penchant" for rabbits and chickens and how he keeps the latter from his garden and likewise from being run over by the ore cars is a mystery to me but I have not heard of a single fatality to rabbit or chicken; but I have heard him complain that his rabbits about "eat him out of house and home." The night inspector is English and fortunately has no garden or animal hobbies, thus leaving the field clear to the day man.

We have to return through the change-house as there is no other means of egress—the building juts directly to and almost over the canyon's edge—so I'll hurry you through in order to escape as many fleas as possible. Now we "right about face" and to the left of the track are huge warehouses, where carbide, fuse, dynamite, etc., are stored, but not in great quantities as the excessive dampness causes dynamite and carbide to deteriorate very rapidly—the major part is stored in Huancarani and brought down to the mine as needed. The second warehouse contains electrical supplies, tools, hardware, etc.

In line with these warehouses but separated by a passageway through which the men from Alta Lima come to work, is an extremely long corrugated iron roof, supported by heavy posts but having no walls, and this covers an electrically driven lathe, welder and other such contrivances; a blacksmith shop, two sawmills and a "lengthy" carpenter shop—all these abodes of activity are classed under the one head of *maestranza* (shops) and a very busy place it is, especially when both sawmills are running "full blast"; the welder is "shooting" its strong, blinding incandescent light; the blacksmiths are sharpening steel or mending cars; the lathes are at work with all those belts revolving at I don't know how many revolutions per minute; the carpenters are hammering and sawing—all these combined sound and look like "Pandemonium let loose," hence the signs, "Danger," "Keep Out," are entirely superfluous as far as I am concerned, even though I can read them in English and Spanish and they surely are superfluous for the Indian, who cannot

HIGH SPOTS IN THE ANDES

read at all. However, there have been surprisingly few accidents in the *maestranza*.

I am sorry I cannot tell you about the mine itself, but as I wrote you before, no woman is ever permitted to enter the mine—the Indians firmly believe that a fatality is sure to occur if a “skirt” enters even the tunnel that leads to the workings. The track from the mouth of the mine to the crusher is a very little more than a quarter of a mile, is narrow-gauge, and parallels the *maestranza*, almost “hugging” it; it used to be at the left of the sawmills but about two years ago we had a very bad landslide, which brought down tons and tons of boulders, burying the track under a veritable mountain of *débris* for a length of fifteen or more yards; it also buried an ore-filled car but luckily the carmen escaped. It was deemed easier to build a new track around the slide than to attempt to uncover the old one and it was much cheaper to buy a new car than to unearth the buried one, even though it was filled with ore. At the time of this slide, Casa Santa Domingo seemed to be in imminent danger of tumbling down upon the workshops, but fortunately, it is still standing. The trees and underbrush, especially the trees, are kept cut down close to the bosom of mother earth, for the swaying of the trees seem to loosen the soil and thus start a slide. (I know we were taught in geology—or was it in physical geography?—that vegetation held the soil in place but, as I mentioned several times previously, everything south of the equator seems to be topsy-turvy and perhaps the equator is to blame for this contrariety.) Rain or shine, I walk up and down this track every day for my “daily dozen”—it is the only level stretch in the whole camp and it slopes very gradually to the crusher.

Yesterday our surveyor told me that a carman averages twenty cars a day. The track from the mouth of the mine to the hoist, where the ore is loaded into cars, is 450 meters; from the mouth of the mine to the crusher, where the ore is dumped and crushed before it is ground in the Hardinge mill, is a wee bit more than a quarter of a mile (I have checked up on this with my pedometer), so our surveyor has estimated that each carman walks eight leagues (twenty-

THE SANTO DOMINGO CAMP

four miles) on every shift; he not only walks, but he pushes a ton of ore half of this distance. It takes a husky young man for this work, yet we have had men who made a record of twenty-five cars a shift. The carman is paid twenty *centavos* a car (in normal times about eight cents)—do you think he earns his money? I most emphatically think he does and earns it not only by the sweat of his brow but of his entire body as well, for he emerges from the mine dripping with perspiration.

On the right side of the track is the flume or canal, which carries the water that is used for milling the ore in the mill. Its source is the Santo Domingo Creek and, up to date, it has been unfailing. Aside from its usefulness, this canal is a never-ending means of entertainment to Mary, a German police-dog, brought to Santo Domingo by Mr. Maycumber in November, 1929. At first she was strictly a "one man's" dog but now she is the pet of the camp and she delights in bringing out the rocks that are thrown into the flume, and almost everybody walking along the track will accommodate her by throwing in a rock or two. She has the run of the camp, except that she, too, is not allowed to enter the mine!

Adjoining each other and close to the crusher is a group of buildings which are, respectively, the engineer's office, where the maps of the mine (its workings) are kept up to date, and it is the depository of all the blueprints, etc.; the *chancadora*, where the samples of ore from the mine are ground and later are panned below in the mill—the high-grade ore is kept here, too, in strong, locked boxes until ground in a special mill, usually shortly before the regular monthly clean-up; next is the metallurgist's office and laboratory, with its large variety of bottles, test tubes, pipettes, balances, crucibles and other paraphernalia; communicating with this is the electric shop or *taller electrico* which overawes one with its multiplicity of motors, dynamos and other complicated machinery; directly opposite, on the other side of the track, is the transformer, which changes the "juice" from 6600 to 440 volts—the gate to this building is always locked but the vibration and reverberation occasioned by the "transforming" is enough to keep me out without lock and key. I have

HIGH SPOTS IN THE ANDES

always had an "inferiority complex" about anything relating to electricity and this, too, after a whole semester of Electricity in the year of Physics, required at college to get my M.S., no I mean my B.S., degree; needless to say I was exposed enough but it didn't "take" and to this day I feel that I owe my passing grade to a chain of fortuitous circumstances and not to any familiarity with motors or dynamos.

Catercornered from the transformer is the *fundicion* or smeltery, where the amalgam is distilled and the gold refined and smelted. This building contained, when we arrived, a huge brick furnace in which the smelting was done and "old-timers" say that it took from two to three days to get the gold bricks ready for transportation. Mr. Othick, our millman, had designed a furnace for such work in Bolivia, so he built a similar one here and now we distill, smelt and refine and cast into bricks, weigh, take samples for the outside assay check, and even put in boxes, all within a few hours—I believe the record to date is four and one half hours. The cumbersome brick furnace has been dismantled, thus giving much more "gallery" space in the smeltery, for all visitors and I, too, love to watch this last step in the production of gold for the market.

Now we may go either back to the track, cross it, down eight steps, under the track, and around the chute, which carries the ore to the bin, whence it is shoveled into the crusher; or we may go by the trail on the other side of the smeltery—both ways lead to the long flight of stairs that conducts us to the mill.

And you want me to tell you the full process of extracting the gold from the ore—well, be it on your head if the telling becomes a bore! The ore, brought in cars of one ton capacity, is dumped down a chute into the bin, and shoveled into the crusher, the "fines" falling directly into the Hardinge mill below, while the coarse pieces are first crushed before they follow the "fines." The Hardinge mill, a huge iron "monster," shaped somewhat like a gigantic top, lying on its side, contains about two tons of steel balls of various sizes, from that of tennis balls to dumbbells; mercury is poured in this mill at regular intervals of about twenty minutes, and

THE SANTO DOMINGO CAMP

the whole mixture of ore, mercury and balls revolves in this gargantuan, motor-driven, six-foot top at the rate of twenty-nine revolutions per minute. The free gold unites with the mercury and this combination is called amalgam, in the proportion usually of one-third gold and two-thirds mercury, but the proportion varies according to the coarseness of the gold—the coarser the gold, the less proportion of mercury. The greater part of this amalgam should remain in the mill; that which escapes is caught on silver-plated copper plates, which are cleaned twice a day—this daily “egg” is put in the safe until the regular clean-up of the mill and “an egg a day keeps the wolf away.” That which escapes from the plates flows over shaking tables, these concentrates from the tables go to the sump, from which they are pumped into the Huntington mill, which is cleaned five or six times a week; the concentrates from the Huntington mill are sent over another set of copper plates, reconcentrated on other shaking tables, and these “concentrated concentrates” are conveyed to the big tanks to await further treatment, the cyanide process, by means of which it is hoped to extract whatever gold may be left. This entire process is graphically shown in a “flow-sheet” but I am not trying to be technical—far be it from me to “technisize”; but one would infer from all this revolving of machinery, the whirring of belts, the vibrating, of tables and what not, that every tiny speck of gold would be recovered, but a hundred percent recovery is still a goal to be attained.

The regular “clean-up” of the mill is a thorough and “messy” job—muddy water is everywhere. The Hardinge mill is emptied of all its “innards”—the manganese-steel balls are worn to half their original size and sometimes a few balls disappear entirely and the balls have to be replaced at regular intervals. The plates, removed from the mill, are scraped and every crack and cranny in the mill is scraped for every particle of amalgam; the “soup” from the mill is put in a jig and, after jigging, the finer portions are panned—this panning yields the amalgam to which the daily eggs are added. Usually, but not always, the day following the big clean-up, the amalgam is placed in a cast-iron retort and dis-

HIGH SPOTS IN THE ANDES

tilled in exactly the same manner that water is distilled: the mercury, having a lower vaporizing point than gold, distills off, is caught in flasks and used again; but here, too, unfortunately, there is not a hundred percent recovery and the expensive stuff has to be replenished. The residue in the retort is unrefined gold.

The gold that has been extracted from the high-grade ore is now added to that which has been separated from the amalgam and the whole is placed in a crucible with soda and borax for refining and when the mass is fused, a little saltpeter is added to oxidize any basic metals, as copper or iron, which may be present. When the metallurgist decides the "soup" is ready, the compressed air, which has been blowing in the charcoal in the furnace to keep it red hot, is turned off; the glowing red-hot crucible is lifted out of the furnace by tongs, placed on a circular device and the liquid gold, thin as buttermilk, is poured into the molds; the slag (impurities) comes to the top; the mold is gently tapped on all sides and as soon as it is deemed cool enough the mold is turned upside down on a sheet-iron plate; usually, the brick comes out at once but if it doesn't, the mold is tapped some more on the sides and the bottom, and not so gently this time, just as you would get a cake out of a refractory pan. The slag is peeled and chipped off, the brick washed with acid, generally weak nitric acid or aqua regia (nitric and hydrochloric), and with water from a hose until the brick is "shining clean." The letters, I.M.D.C. (Inca Mining & Development Co.) are embossed in the bottom of the mold and the brick shows these letters deeply imbedded—thus it would be difficult for a thief to dispose of a brick, especially if he had to explain whence he obtained the gold.

Then the metallurgist takes two or three samples of the brick to ascertain the fineness of the gold: 1000 is the basis for pure gold and Santo Domingo gold averages from 950 to 970, thus never bringing less than \$20 per ounce, against about \$17 per ounce for unrefined North American gold. I am sure you will agree with me that the pouring of the molten gold is the most intensely interesting step of the entire process of extracting gold from the ore and any visitors

THE SANTO DOMINGO CAMP

we may have at the time and I never miss this spectacular part of the procedure. And the smelters never fail to caution us to keep at a safe distance, for the melting point of gold is approximately 2000° Fahrenheit and it is at this temperature when it is poured, hence you can see how unpleasant, dangerous and even fatal it might be to have this liquid gold spattered about indiscriminately.

After this "symposium" on obtaining gold, I am sure the non-mining friends in our "bunch" will change any preconceived notions they may have had that gold, as is, can be picked off of bushes; like everything else worth while, it is obtained only by the "sweat of the brow" and the toilers in the mine sweat all over, for what few clothes they wear are wringing wet as they come forth from the mine; the carmen almost invariably have little rivulets of sweat running down their faces, while the "inward sweat" of the executives is incalculable; but it is a fascinating game and all the participants are forever looking forward to "striking it rich" and every mining man dreams of some day having a gold mine of his own.

Yes, I know you want to know more about those concentrates, so I'll take you down with me some fifty steps, and irregular ones they are, cut in the rock—some are but a foot high and others so high it takes quite a little exertion to climb them and quite a reach in descending them—and when we have arrived at those huge, cylindrical steel pipes, each of twelve hundred tons capacity, nine of them, and it is estimated that \$500,000 worth of gold is waiting imprisoned inside to be set free, we have come to the most complex plant of all. I think our metallurgist said this plant comprises four distinct operations and there surely is a bewildering variety of machinery. Then these four times more concentrated concentrates will be hoisted by aerial tramway to the MacDougall seven-hearth furnace, in which the heat from the sulphides makes the furnace self-roasting; there is a hand rabble furnace at the plant below, which will be used when the big furnace may be out of commission. You will gather that this plant is not yet functioning but it will be soon and then, our metallurgist says, the Santo Domingo mine will be

HIGH SPOTS IN THE ANDES

the best equipped and most efficient plant in all South America!

But I shall have to bring you back from the furnace; we may return either by the short, "all sorts and kinds" of steps-way or the much longer and easier trail-way, past the MacDougall furnace, which seems to stand as a sentinel to the gateway of the camp, past the smeltery and transformer house and, abruptly leaving the trail, we will climb forty-five irregular steps, pass a small clump of guava trees and arrive at our swimming tank. The water is conserved in this tank for compressor use but on nearly all days except that of smelting it is the "swimmin' hole" of all the Gringos. Many a kiddie has learned to swim here. The tank is sunk about two feet in the ground and its maximum depth is four and one half feet; it is a little larger than the canvas tanks on steamers, circular instead of rectangular; the water has to be changed every few days on account of numerous big toads, who seem to find no other place to spawn and this, in spite of the fact that we have strewn carbide ashes all around the tank in an effort to keep them out.

Ever since leaving the main trail, we have been climbing a peninsula, or is it a promontory? Or what would you designate a narrow, high neck of land *not* surrounded by water but bounded by canyons on three sides? I should judge the swimming tank is about a third of the way up to my home but fifty-six steps more must be negotiated before we reach the "Gerencia." The house is built on solid rock; it has a rock foundation and the rains (and such rains!) have descended, and the floods have come, and the winds have blown and have beat upon this house and it has not fallen—yet. An earthquake in 1928, a few months before our arrival in Peru, shook the kitchen loose and it went pell-mell into the canyon below, but it had no rock foundation, it was built on stilts; it has not been replaced for we continue to dine *en famille* with our unattached employees at Casa Santo Domingo.

My front yard (save the mark!) has a clump of guava trees (and gauva jelly is always delicious) whose tops barely reach the railing, which protects us from walking off into space

THE SANTO DOMINGO CAMP

(and landing ignominiously astride a guava tree), said space just five feet from my porch; thus the trees do not obstruct the view of the trail all the way to Casa Santo Domingo (and the mule trains, the herds of llamas bringing in supplies, the people traveling back and forth from Maldonado—each and every one is an “event”). From any one of the front windows, one can see most of “Alta Lima” and but a wee bit of the track and of the change-house; to see more of the track, it is necessary to lean over the railing, as the steepness of the hill precludes a fuller view. The side windows allow one to see the swimming tank and a jumble of galvanized roofs below, with the towering mountain side beyond, and so “straight up” is this mountain and so close, that it throws its shadow over the track at three in the afternoon, and from my bedroom window sometimes it seems, by leaning out, that I could almost touch the huge scar, many feet wide and extending the full length, from top to bottom, of this mighty mountain. There are three enormous scars, roughly parallel, the biggest one nearest my window, caused by lightning during one of the worst storms I ever witnessed. In a few years’ time, however, these scars will be obliterated—in fact, the smallest one of these three is now almost covered with new growth of trees. The back windows give an excellent view of the trail until a sharp curve eliminates the vista. This back view permits much more territory to be seen and the cloud effects early in the morning, almost every morning, the constantly changing, fleecy, half-transparent clouds floating leisurely below and around and above the mountain tops—these cloud effects are something to rave about and nearly all our friends do rave about this early panoramic “cloud-world”; and after more than three years, I am still entranced by this view from my bedroom window.

Our living room has a door opening on the back yard, which extends just seven feet to the *top* of a rock-wall, extending twenty feet down and then losing itself in the rocks of the canyon. There is no railing around the back yard and in spite of the steepness, there are three groups of graceful banana trees, rearing their broad leafy tops within a few feet of the top of the high wall. On the swimming tank

HIGH SPOTS IN THE ANDES

side are three rose beds (*rosal*) in terraces, each bed protected from ants by narrow troughs of corrugated iron; one of these troughs became full of holes and before we were aware of it, the ants had stripped the rose bushes as clean as a hound's tooth. Friedrich Ritter in "Adam and Eve in the Galapagos," *Atlantic Monthly*, November, 1931, describes the ravages of ants very realistically: he says the ants cover the green leaves in such numbers that the green disappears completely beneath the black or red of their bodies. Every leaf was stripped off our rose bushes without our even seeing the black or red bodies—then our doctor came to the rescue. He cut back the naked limbs ruthlessly, down to less than a foot above the ground, had the troughs filled with carbide ash to kill the ants that might still be inside of the enclosure, had more soil with fertilizer strewn on top, and in an incredibly short time—I wish I could tell you exactly, but I forgot to note in my diary the day that the doctor "operated on and treated" those rose beds—but I could scarcely believe my own eyes when I noted those bushes not only leaved out most profusely, but dozens of blossoms nodding vigorously in the breeze and one superb La France beauty in full flower. However, it is a matter of ceaseless toil and eternal vigilance to keep a garden "trim and lovely" in the tropics—the weeds grow like "Jack's beanstalk" and there are myriads of pestiferous insects to bother and plague; we do not have to irrigate, on the contrary, the superabundance of water has to be drained off and there are so many beautiful wild flowers and such marvelous foliage at any time and everywhere that I sometimes think a cultivated garden is superfluous.

I told you that the Gringo homes were built of rock and had cement floors but our living room, bedroom and bathroom have frame walls, which I like much better as they dry out quickly after a rain; and my cement floors—cement, to keep out bugs and all crawling things—are covered with native rugs of llama or sheep wool, in the brightest colors imaginable; one would think the reds, purples, yellows, green, pink and black would clash but they are surprisingly harmonious and the colors do not fade and they "wash" easily—the laundress takes the rugs to the creek and beats

THE SANTO DOMINGO CAMP

them on the rocks, dries them in the sun on other rocks and brings them back, fresh and sweet as new-mown hay.

With the exception of a few American factory-made rockers, all my furniture is homemade and I am sure you will kindly envy my choice pieces, when you see them, and most of them are "choice," for they are made of snakewood, mahogany, laurel, camphor, incense and other highly prized tropical woods and most of our carpenters are really cabinet makers and much prefer making furniture to the "ordinary" work required at a mine. I have a beautiful snakewood typewriter desk, with the body so deep and broad and long that it holds not only my typewriter, but reams of paper, ink, pencils and what not and has a compartment at one end for unanswered letters and at the other for stationery, enough to last for several weeks; it has movable supports at both ends, one for "copy" and the one at the left for finished work; when the top is propped open, the desk looks like a miniature baby grand piano, for the legs are curved and the whole thing has taken on a beautiful polish. When sitting at the desk, at my left I have a small table for accumulated work and directly above this table a small shelf, which holds all my dictionaries, German, French, Spanish and an unabridged English one, all within easy reach; the chair, matching the desk and its "curved to fit" back all in one piece, extending to the floor, has no legs but a triangular support, reminding me of a cathedra I saw in Cologne, Germany; Mrs. Stacpoole, the wife of our former Mine Superintendent, deserves the credit for designing this chair, while her magazine, *The House Beautiful*, has been the source of many of our artistic pieces of furniture. Directly at my left is a large window and at my back is a five-shelved bookcase containing a heterogeneous collection of textbooks, novels and biographies. If you have visualized this "study" corner, I can almost hear you exclaim, "It is the 'last word' in convenience and no wonder Jo always answers her letters so promptly." But, my dear, if only the inspiration could so conveniently be called upon!

In the corner diagonally from my desk is a seven-foot sofa of camphor wood with artistic curved back and arm rests;

HIGH SPOTS IN THE ANDES

it is unusually wide, upholstered in the same material as the window drapes and sometimes it is too much of an inspiration to an afternoon siesta! It seats five people very comfortably, while seven have crowded on it to view a whole evening's entertainment of "private movies," and it has made a very comfortable bed. We have tables of many varieties, both as to woods and design: the prettiest one is long and narrow, of camphor wood, with a wide-based column at each end, reinforced by a matched beam—and I'll wager you couldn't guess in a thousand years what I have for a "runner" on this table of "elegant simplicity"—a potato sack! The Indians bring their potatoes in home-woven sacks of llama wool, striped alternately in light tan and brown; they are woven in one piece, sewed up on the sides, so when ripped open and washed, you have a good-looking runner, which in an art shop would bring at least ten dollars. Then there is an octagon-shaped table of camphor wood to match the sofa. I was supposed to have two of these but I felt the room looked too crowded, for, besides what I have already described, we have a reading table of cedar, which would be called mahogany "up north," a telephone table also of this cedar, a cabinet of cedar, trimmed with camphor wood, a very large "used-to-be" buffet of cedar, camphor and snake, which is now a "catch all" for whatever can't be stowed elsewhere, a sort of "what not," which I hear is being revived at home, and another five-shelved bookcase, and so you will rightfully infer that our living room is colorful.

But the pride of my heart is a chest of drawers in our bedroom—four huge drawers, five feet long, three feet three inches wide and varying from fourteen inches to twenty-two inches in depth—the whole thing stands five feet high, is made of camphor wood and cedar (which no bug will explore) and trimmed with snakewood; the parts were made in the carpenter shop, varnished and then assembled in the bedroom; to clean underneath, the lowest drawer is removed but as all our clothes and all our bedding need to be put in the sunshine often, for, as I have written you many times, it rains here almost every day, the annual rainfall averaging considerably more than 250 inches, so removing the drawers

THE SANTO DOMINGO CAMP

of the chest to put them and their contents in the direct rays of the sun is weekly routine, if the sun shines any one day long enough to make it that often. Then I have a cedar box for my best linens.

Our bed, too, is a huge affair, of camphor and cedar; the headpiece has a lyre in the center with a series of curlicues at either side, while the footboard matches with just the series of curlicues—it is almost impossible to get our carpenters to make anything perfectly plain; they will follow a design faithfully and then stick on a “do-dad” here and there, especially if the furniture is for the “Gerente” or for the mill superintendent. Feature, if you can, a five-foot canopy of écru marquissette over this bed and you will at once be of the opinion that the room must be for “over-sized” folks; however, the dressing table and bench to match, also of camphor and cedar, are regulation size and the chairs are not large.

The pity of it is that none of this furniture can be taken out—forty-six miles over a narrow muleback trail is prohibitive of anything but essentials and one very soon learns how very little is really essential. My accumulation of furniture has been a gradual process—it is only this last year that I felt I could say, “Enough”; our carpenters are needed for more “important” work and it is only during “slack” times that any furniture is made. But one of our carpenters made six very pretty picture frames for me of snakewood and I count on bringing them home, if I have to smuggle them through! The carpenter made them after and before “shift” and, much to my regret, was soon after “sent down the hill” for high-grading.

In going out or coming in, we cover our suitcases with *bolsas de goma*, bags of crude rubber, made at Maldonado, else they and their contents, more than likely, would become “sopping wet,” but unless there is some special reason, we dump everything directly into the rubber bags, which stay “put” on the mules better than suitcases. Nearly all of us have ponchos, too, made of the native rubber, but they are too heavy to wear except when on a mule. I had a poncho made of blue Japanese silk and then rubberized at Mal-

HIGH SPOTS IN THE ANDES

danado; it was much lighter in weight, hence more satisfactory, but it did not wear well. Mrs. Brooke had a very pretty one made of red silk but it was too heavy for comfort. Some day I plan to have a silk cape rubberized and I think that will solve the problem for a "raincoat" in camp. We have never succeeded yet in getting an umbrella or raincoat, either from the States or from here, that will withstand the heavy downpours in "our" section of the tropics, but fortunately the weather is warm, hence wet clothes and wet feet do not affect us adversely—in fact, we all seem to thrive on the super-humidity.

And our clothes? Four years' experience has taught me that sleeveless linen or cotton frocks with long-sleeved coats (ensemble, I think the salesladies call this combination) are just the thing for day wear, with the same thing in light wool for evening or an occasional cool day; a few light weight, woolen sweaters are indispensable; the long-sleeved coats are a necessity, unless you are willing to have your arms mottled or even tattooed every time you leave the house by the thousand and one insects that seem to be lying in ambush (flying in a bush is really more accurate) with tattooing implements ever ready. Evening frocks? Yes, a few but our formal affairs are few and far between. Rubbers are impractical—the sharp rocks cut them the first time you wear them and you know a leaky rubber is worse than none at all; just make up your mind to have wet feet and to change shoes and stockings when convenient.

Writing of clothes reminds one of vacations: in the high altitudes of Bolivia and Peru, it is customary and sometimes obligatory for the employees to have a two weeks' vacation every six months and this is preferable to a month's "holiday" once a year, although the latter is often permitted. Santo Domingo is not high, is about as high as Denver, but the lack of sunshine makes a sojourn to a sunnier locality almost as imperative as the excessive altitude to sea level; but at Santo Domingo the executive staff is not large enough to permit scheduled vacations, such as Cerro de Pasco or Chuquicamata provide; here an employee takes his outing when circumstances are favorable, when another employee

THE SANTO DOMINGO CAMP

can do the work of both. For example, when Mr. Othick, the millman, leaves, Mr. Maycumber, the metallurgist, looks after both mill and furnace and vice versa when Mr. Maycumber is gone; Clarence and Lee interchange work in the mine; our doctor is especially adaptable in all other departments, keeping books, tending store and even taking over the housekeeping duties at Casa Santo Domingo, while if the doctor is vacationing, Mr. Spitzer, the accountant, or Mr. Maycumber or Mr. Nugent, the engineer, one or two and sometimes all three of them will dress wounds or administer salts. During the doctor's last "holiday" of more than two months (he had all his teeth extracted, twenty-four and a half, as he wrote, at one sitting and as a consequence his gums were in a bad state and needed daily attention for a long time, before his "store teeth" could be adjusted), Mr. Nugent, with a penchant for medicine, took over all the responsibility and the doctor's white cover-alls, pored over the ponderous medical books in every spare moment, and diagnosed every patient most conscientiously, but the majority of the patients received iodine externally and salts (usually an overdose) internally and they recovered surprisingly quickly. Mr. Nugent really made quite a reputation for himself and we all accosted him as "Dr. Nugent"; everything went along splendidly but it was not until some time after Dr. Hori's return that I learned that "Dr." Nugent had officiated at eight births—somehow, such contingencies had not occurred to me; one child was stillborn but the other seven are fine, husky tots; no deaths and seven births for a substitute doctor in two months is a mighty good record, no?

Returning to clothes, it is, perhaps, unnecessary to add that riding togs and hiking boots are a necessity, at least for me, for I usually accompany Clarence on his trips to Oroya or to Bella Pampa or to Tunquipata. We can go to Tunquipata and back easily in a half day—one can "hike" it both ways in that time but nearly everyone prefers to return *en mula*, for from Tunquipata to the mine is the "stiffest" climb of the entire Santo Domingo trail. One can make the round trip to Oroya and Bella Pampa leisurely in one day and men folks have made it in a half day, but that entails quite

HIGH SPOTS IN THE ANDES

strenuous riding. I recall a recent trip with Clarence to Oroya, where he was called on urgent business but we took the movie camera along, as we almost always do, and after the business had been dispatched, we were told that among the many men panning for gold in the Inambari River, there was a group of fifty-two "panners" only *un rato* (a very short time) on the way to Macho. So to Macho we went, over a trail used only for men and burros that bring fruit and vegetables to the mine; we rode and rode, seeing several groups of men panning but not more than six or eight to a group.

I have expatiated to you on the wonderful Santo Domingo trail, but for real charm, you must go over one of these comparatively unused trails: the overhanging branches and vines demand constant attention, and I really believe some of those overhanging vines are strong enough to lift one out of the saddle—you clutch your hat repeatedly but keep it jammed on, so the briars and brambles won't scalp you. Several times we had to dismount, rather than take the chance of being swept off our mules as we were about to enter an arbor of interlacing vines and branches; a fallen tree, too large to be removed by man power, and too high for a mule to negotiate, was simply hacked with a machete until hollowed down to a mule's reach; several times we leaned over to one side, neck to neck, with our mules, to pass under a projecting tree; the footing was always secure but the "overhead" was decidedly perilous, perilous to eyes, to unprotected hair, while a fending arm saved the face from many a deep scratch. But the intense stillness, the untamed luxuriance of the vegetable life, the brilliant colors running riot, the utter seclusion, the feeling that you must be miles and miles away from any human habitation, from anything that even borders on civilization, these disseminate an unforgettable charm, and we felt more than compensated for not being able to locate the big *cuadrilla* (crew), bending their backs to fill the pans with gravel and then patiently and cautiously washing the gravel, with a constant shaking and twirling, which throws out the gravel and leaves the precious little specks of gold in the pan—and always the panner is expecting, and

THE SANTO DOMINGO CAMP

sometimes finds, nuggets as well as specks of gold in the pan.

And, Iva, another interesting trip for you and especially for "Wag" will be along the Inambari during the dry season to see the *chacras de oro* or "gold farms"; along the banks between the high- and low-water mark are hundreds of acres of these "gold farms." They consist of riffles formed by placing flat stones on edge and normal to the flow of the river; the riffles are held securely between rows of large stones, placed about six feet apart and wedged securely on a bed of fine sand. During the rainy season the "farms" are covered with water and fine particles of gold are caught in the riffles; when the river subsides, the riffles are taken out and the fine sand is panned, not with the customary miner's pan but with wooden *bateas*, hand made, and very much like our old-fashioned wooden chopping bowl, in which we made hash, before the meat grinders came into vogue. Undoubtedly such "farms" were "cultivated" by the Incas long before the Spanish Conquest and the fact that the work continues year after year is indisputable proof that "there is gold in them thar creeks" that feed the Inambari, as well as in the main stream itself.

Clarence contented himself with taking some "shots" at the small groups, working in the river, on our return. On another trip, he lost a "perhaps never again" opportunity to get a movie of an Indian wading the Quitun River; the water reached his waist and when he climbed the opposite bank, a magnificent exemplification of a bronze figure, an Inca noble rather than a serf, he calmly turned his back, donned his trousers, which he had carried in his *llijilla* on his back, and then disappeared behind the rocks!

While Clarence never seems to have time to take a vacation, *per se*, yet we have managed to combine a good deal of pleasure with a good deal of business on every trip to Arequipa or Lima. On one such occasion, I had my first airplane ride. It was in the *Washington*, the Bellanca airplane, pilot ship of the Shippee-Johnson Expedition to Peru (Robert Shippee was the historian of the party and you may find a lot about their adventures

HIGH SPOTS IN THE ANDES

down here in a coming *National Geographic Magazine* and I am sure it will be illustrated with many wonderful photographs; one photograph of the vicinity of Cuzco, taken from the air, will tell you more about the topography of the Inambari section, for the two sections are almost exact replicas, than a whole volume of written description). Their expedition consisted of five men and two Bellanca planes, the *Washington* and the *Lima*; we had the pleasure of meeting all five of these youthful exploring adventurers, almost on the day of our arrival in Lima, and as we were all domiciled at the Hotel Bolivar, we had many very, very interesting "confabs": can you imagine anything more diverting, more absorbingly interesting, more stimulating to two people who have been in an isolated mining camp for many months than the stories told by a group of aviators, the majority of whom were barely out of their "teens"? That is, if they can be persuaded to talk at all. At first Clarence did nearly all the talking but gradually their tongues untied and how I wish I had had a micrographophone (is that what "they" call the little instrument that registers everything one says, without the speaker being aware of its existence?) in order that I might write you even half of the thrills! Each one wore an identification tag securely fastened on his wrist—this alone would have "scared me stiff"—but their bravery seemed to amount to almost a contempt for "that last enemy," death.

Messrs. Johnson and Shippee invited us to fly with them and so, one Sunday afternoon of a cloudless day, we "hopped off" from the aviation field, near the Country Club, Mr. Shippee at the controls, Mr. Johnson sitting alongside of him, Clarence and I occupying the two seats in the rear. Clarence had flown several times before but this was my first flight and I tried not to be afraid, but as we left "terra firma" I planted my feet tensely on the floor, I held tightly to the arm of my chair with my left hand, while with my right I fear I almost crushed Clarence's hand, but after a few moments I relaxed and a quarter of an hour later was really enjoying the swiftly changing, always interesting panorama spread out below us. We flew directly from the aviation

THE SANTO DOMINGO CAMP

field to the ocean, circled back over Lima and far into the interior, reaching a maximum height of 13,000 feet, most of the time flying at two or three thousand feet, but they wanted to show us how easily their machine could climb and knew, too, that we were accustomed to high altitudes. Of course, this plane has gone much higher than 13,000—I believe it had already been up 21,000 and had a “ceiling” of more than 30,000 feet. Once we got into a pocket of air and started down like a rocket—that did make my heart stop a beat or two—but Shippee soon righted us, and when we landed again at the same place we had taken off, we had been gone exactly one hour and had seen more territory and crowded in more “high pressure” excitement than a whole day’s motoring or any other means of locomotion could have afforded us.

But, my dear, I have taken you a long way from the camp! But I have told you about everything of the camp, except the corrals for the sheep, pigs and cattle: the sheep and cattle are herded beyond the store on that steep hillside of the last range before we enter the Amazon Basin—the pigs are kept closer in for convenient feeding from Casa Santo Domingo; when ready for slaughtering, the victim is brought to an enclosure above the store. The “innards” that we consider worthless, and are usually thrown away, are highly prized by the natives and our *sereno*, who superintends the butchering, has become a master diplomat in apportioning out these tidbits. The first year or two we were here, we almost never had beef and were told the cows would not cross the swinging bridges, but that must have been a fallacy or else the cows have been “bred up” to cross suspension bridges, for now we have our choice of beef, mutton or pork.

Just a few days ago we were all on the *qui vive* awaiting the arrival of twenty-two Indians carrying a two-thousand-pound cable from Huancarani; it took them eight days. The weight of the cable had been evenly distributed in coils, each Indian with a coil on his back, with approximately four feet of cable between carriers. When notified by an “outpost” of their appearance, we women hastened down to the mill to get a “close up”; unfortunately, although it was only four

HIGH SPOTS IN THE ANDES

o'clock, it was already "nighting" in the canyon, so distinct, good photographs were impossible. I thought the men would be tired out but they stepped up in comparatively lively, perfect rhythm, all the way up that last, excessively steep curve; it reminded one of a monstrous prehistoric serpent undulating its articulated body with all the rapidity of which it was capable to a favorite haunt, an awaiting repast, perhaps. *Not* apropos, these Indians *were* hungry and very likely had been apprized that "breads" and hot coffee were to be added to their daily wage.

Now, before I finish this letter, I am of the opinion you will be interested in a neighboring camp, a gold placer mining camp, about four hours on foot from Santo Domingo, up the very high and steep ridge at our left, the most strenuous part of the hike over there, but after you arrive, you have the feeling of "wide, open spaces," for this camp is located on a ridge and not, like Santo Domingo, in a gravy boat, with the lip of the boat toward the incoming trail, the buildings I have so faithfully described clinging like bits of thick gravy on all sides but the western—that side is too perpendicular for even the tiniest drop of gravy to stick—and Santo Domingo creek is the little trickle of gravy at the bottom of the dish. The view at Chabuca (Spanish nickname for Isabel), as this camp is called, is truly magnificent; on a clear day, one can see the multiplicity of knife-like ridges for miles and miles and even get a glimpse far down in the Amazon Basin. But far more interesting than the view is the manner in which these hardy pioneers, who own the mine, have thumbed their noses at "Old Lady Depression."

Mrs. Stacpoole, whom I have mentioned several times in my letters, lives here and to her belongs much of the credit for the charming home they have wrought out of what was at hand: it is a comfortable, two-room house, which cost, all told, in United States currency, just \$25. The walls are built of slabs from the large palm trees, tied together with strips of bark—no nails whatever in the whole house—and the roof is thatched with palm leaves. (The palm tree is almost as fully utilized as the llama, for Mrs. S. serves her

THE SANTO DOMINGO CAMP

guests delicious salads, the base of which is the heart of the palm, while the men are planning to scrape out the pulpy insides of the trees and use the shell for pipe!) Mrs. S. has lined the walls with soft-colored muslins and ceiled the roof with unbleached muslin. All of the furniture is hand made—as yet, they have no sawmill—and most of it is very attractive; in clearing out their placer ground for operations, they have piled up an enormous amount of trees with their gnarled roots and a surprising quantity of furniture has been salvaged from these roots with but a minimum amount of work. For instance, there are three-legged stools, that needed only cutting down to required height; a towel rack, as was, not even requiring polishing; chairs and tables, made of slabs of wood with gnarled roots for legs, the ensemble being rustic furniture, *par excellence*. The beds are frames, also salvaged from the brush-heap, over which is stretched canvas, and take it from me, a Simmons bed is not more comfortable. The kitchen stove is made of two pieces of sheet iron, built up on stone and clay, and occasionally it smokes, too, just like a factory-made stove does, when the wind is blowing the wrong way; to bake bread, Mrs. S. has a fire built under the stove, in about three hours the stones are hot, the fire is raked out and the bread baked between the hot stones and “yum, yum,” no electric stove ever baked better bread. The broom is a bundle of twigs, tied with strips of bark, and answers very well for the hardened mud floor. If a piece of rope or string is needed, bark is peeled off a tree and twisted to the desired thickness. Even medicine is at hand: if you burn or cut a finger, put the juice of a certain fern on the wound and forget about it—when you look at it again, the wound is healed.

Mrs. S. has one servant, whom she pays the equivalent of \$2.50 per month—he rises at 4:30 A.M., builds the fire (and that is no light task in this humid country where the wood is always wet), prepares breakfast, carries in all the wood and water, takes the sheep to pasture, helps with the other meals (makes the hominy by boiling corn in ashes, and is it good? If you once have some of it, you will have no other kind of hominy); in his spare time, he entertains Pancho, nine

HIGH SPOTS IN THE ANDES

years old, the only son and heir, by teaching him much of the bird and animal life, telling him which of the wild plants are good to eat and which are poisonous, teaching him how to use the omnipresent machete and simply but reverently giving the adolescent child fine ideas about his "Tata Dios" (Father-God), all of whose manifestations of nature are His revelations to him.

The Stacpooles are now planning a commodious six-room house on the most wonderful building site you ever saw, overlooking an immensely large lake of the deepest blue—a site for a million dollar home, and they expect their home to cost them exactly two hundred American dollars; its only cost will be labor, window glass and corrugated iron for the roof. I know, Iva, you are saying, "But the rain pattering down on a thatched roof is much more romantic than the thumping on a tin roof." Granted, but a thatched roof is an ideal haunt for worms and other crawling things, without mentioning the fire hazard, and one must be much younger and infinitely more romantic than either Mrs. S. or I to prefer worms to a commonplace roof. However, the Chabuca camp is charming and it is a living monument to what pluck, ingenuity and determination, highly flavored with faith, can do. Here's hoping they make more than a million to justify that faith!

It doesn't seem possible that I could have left out a single detail in telling you about the camp; if it weren't for the precipices and cliffs, I would suggest you could even find your way around here blindfolded.

CHAPTER XI

BUTTERFLIES, MOTHS, BATS, INSECTS, SNAILS, BIRDS, SNAKES, ETC.

Santo Domingo Mine, Oct. 15, 1932.

DEAREST IVA:

I am writing this "sure-to-be" very long letter without awaiting a reply to my last also very long letter, for it will be about the longest "round robin" I have undertaken and I fear you will have to treble the postage in sending it on; and yet I know I could go on adding and adding to it indefinitely, for scarcely a day passes that I do not see something unusual.

When we first arrived in Santo Domingo, I was so enthusiastic about the bewildering number and variety of beautiful butterflies to be seen both day and night—for the night butterflies are as numerous and oftentimes even more beautiful than those that flit around only in the sunlight—that I gave Clarence no peace until he had a butterfly net made for me, and very soon afterwards, several more nets had to be made to accommodate our visitors, who also, at once, became enthused with the infectious idea of making a collection of butterflies, or capturing a few anyway for butterfly trays. Now I have a collection of three hundred to four hundred with but very few duplicates; each butterfly is in its own "envelope"—paper folded to hold the victim in place and to keep out insects—and all the envelopes compactly arranged in a five-gallon tin can, well soldered. The can is in Tirapata, where it will remain sealed until we come home to stay and I am hoping the Customs officials will not insist upon having the can opened, for I prefer to leave them just as they are until we are ready to mount them in cases along the north wall of the "dream home" we have planned and replanned so many times; the north wall must extend the full length of the house in order to give adequate space,

HIGH SPOTS IN THE ANDES

not only for this collection of butterflies, but for skins, blankets and "sech like" that we have gradually accumulated in our decade south of the equator.

Among our hundreds of butterflies, we have six of those gorgeous, blue and gold, iridescent ones, large as saucers; we saw some exactly like these in the Museum of Natural History during our last visit in New York City and we saw quite a few other "Santo Domingo" ones but I am sure we have a great many that are not in this museum. I used to embroider butterflies on doilies and cushions when we lived in Bolivia, which often gave occasion for Clarence or Lee to say, "I have never seen a butterfly like that, you must have taken those colors out of thin air." But since we are in Santo Domingo, I could (but don't) embroider *anything* and they would both swear it was from a living model.

We have butterflies of all sizes and colors and the largest are not always the most beautiful; some of the daintiest, laciest ones are not more than an inch or two with outspread wings; many are of solid colors, the yellow of the California poppy predominating; several shades of blue, of brown, of green—not many of green—conspicuously few of any shade of red, of black, of white, and then all the combinations of colors imaginable; they are dotted, they are striped, they have bias bands, even all three combined, and some have distinct numbers, 89, 88, 86 and 80, under their wings, just as airplanes are numbered; some have geometric figures, others conventional designs, or, what will you have? I recall one butterfly in our collection which is like an exquisite piece of black lace, so delicate, so dainty, I was always surprised to see it still with all its beauty when the paper was unfolded, as taking care of the butterflies after their capture and instantaneous death (generally by the cyanide or chloroform route) is an art in itself—sometimes merely a touch on a wing, ever so light a touch, will spoil an otherwise perfect specimen. We have small, dainty, silver-white butterflies that, when all spread out, are no larger than a quarter of a dollar; others so beautiful both "right side up" and underneath that they just must be mounted "outside" and reverse!

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

I did not accumulate all this assortment myself, a large part of it was given to me by Furuya San, a Japanese, in charge of the electric plant at Tunquipata; the hum of the machinery seemed to attract the butterflies and on a sunny day Furuya San would net as many as fifty in a few hours, but, of course, all would not be perfect specimens and many would be replicas—however, this gave us the opportunity to select the best. I never forgot to send a box of fudge or other homemade candy to Furuya with Clarence or whomsoever was bound for Tunquipata and the rewards of dozens of butterflies were so prompt! When the Bells or the Graybills visited us, we invariably took at least one butterfly net with us on all our rambles and even though the man of the party usually did most of the capturing, yet on our return to camp, the spoils were without exception most scrupulously apportioned on a fifty-fifty basis. Mr. Bell has made some wonderfully beautiful trays from butterflies of Santo Domingo and the last time Clarence and I were in New York we saw some butterfly trays on display in a shop window and we entered the shop to enquire the prices—we decided gathering butterflies for trays is better than a gold mine. I have been able to label but a few of my specimens; I am inclined to believe quite a few of them have as yet never had a label, but I *think* my collection boasts a Red Admiral, a Pearl Bordered Fritillary, a Marbled White, a Purple Hair Streak, a Green Hair Streak, a Green Veined White, Green Comma, Spring Beauty, Silver Studded Blue, Zebra Swallowtail, Large Copper, Checkered Skipper and Painted Lady. Aren't the mere names enchanting? Ah, wait until you see the actualities.

Moths? Thousands and thousands and more thousands of them. The natives call the moths night butterflies, which seems to me much more appropriate, and these night butterflies are entirely distinct from the commonly known, destructive moth. These night butterflies seem to love to foregather at the mill, attracted by the bright lights (the mill, as I wrote you, has no walls) and also, I presume, by the hum of the machinery; here, too, a box of candy judiciously presented has brought most gratifying results. We

HIGH SPOTS IN THE ANDES

have some magnificent specimens: rich brown, velvety ones with gold trimmings and large transparent spots in their wings—we have dubbed these our isinglass moths—outspread, one would almost completely cover a salad plate. In trying to compare the day butterflies with the night ones, I would say that richness of texture and subdued elegance more nearly describes the night variety, while delicacy, daintiness, gorgeousness, sometimes even garishness of color more aptly belong to the “sun worshipers.” The moths “come” in browns, tans, blues, pale greens, blacks and whites—subdued colors, you will notice; but very rarely have we seen a night butterfly of garish hue. The body of the moth is thicker than that of the day butterfly, hence is more difficult to mount and to deodorize. I have been able to label but a few moths: Great Peacock, Brindled Beauty, Dark Crimson Underwing, Goat, and Large Yellow Underwing; but we have named a lot ourselves, such as Isinglass, Dowager, Lady in Mourning, Altogether Lovely, Starry Night, Midnight Beauty, Dusky Loveliness, Symphony in Brown, Graceful Gray, etc.

The tiny moths, the larvæ of which are so destructive to our clothes, our rugs, our blankets and to our “even tempers,” if we so permit, we have in such plenitude, that we meekly bow to the inevitable and bring to Santo Domingo only those things which we do not plan to take out again. Right now I am holding on to my temper, while trying to rid the practically new mattress in our guest room of moths: every sunny day the *chico* from Casa Santo Domingo carries the four sections of the mattress out of doors, deposits them on the railing and goes over them thoroughly with a brush and every time he kills a few of the little loathsome worms about to metamorphose into the winged pests; now we are dousing every tuft with creosote and *vamos á ver* (we shall see) if it “works.” The creosote has spoiled the appearance of the lovely mattress but *que importa?* (what difference does that make?), if we can exterminate this damage-doer. We have had all the mattresses for double beds made in sections to expedite carrying them out and in, especially “in,” as the rains come sometimes as if by magic, with no warning at all.

Since bats prey on moths, we also have bats by the thou-

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

sands; in fact, the bat is our worst pest. On my way down to South America, almost ten years ago, the captain of our boat entertained (if little thrills of fear and horror up and down one's spine can be called entertainment) us with stories of the huge, hideous, filthy, fearsome, bloodthirsty vampire bat, how it preyed on human beings as well as on beasts; how, by gently fluttering its wings, it anæsthetizes its victim more cleverly than any surgeon has as yet been able to do; while drinking its victim's blood, it fans him with its wings into dreamless sleep; how, after it has had its fill of blood, it again closes the wound so gently that the "patient" is unaware that he has been operated on. The victim has a feeling of weakness or even dizziness when he tries to arise, and then when he sees the pool of blood at his bedside or at the foot of the bed, he first knows that he has been attacked by the dreaded, loathsome bat. This bat prefers to work on the nose, his second choice is the big toe, but he will drink the blood from any accessible part of the body and the bat's digestive tract apparently is not complicated at all, for the blood at the bedside or at its foot has already been digested by the repulsive, nauseous night visitor.

Our barn at Bella Pampa is screened to keep out bats, for our mules of the mule train spend the night at Bella Pampa, both coming in and going out, and rarely do any but the camp mules remain overnight at Santo Domingo, more on account of lack of feed than the menace of bats. However, we do have some vampires in Santo Domingo, for during one of our "bat clean-ups," three rather large vampires were slaughtered. We have a favorite mule, Christina, who was "mine property" when we took over the mine, who remains in camp. She has not only learned to defend herself from bats and how to keep "fat and fit" on the feed which the steep mountain sides of Santo Domingo afford, but apparently has taught three other mules how to do likewise! When a "hurry-up" call comes from either of the power plants, Christina is always the first one requisitioned; the electrician would just as lief walk down, as far as Tunquipata anyway; indeed, almost everybody prefers to walk down this far, but returning, climbing that steep trail, that

HIGH SPOTS IN THE ANDES

is another story, so everybody is appreciative not only of Christina, but more so that she has made three other mules also "bat proof."

When, on the second night after our arrival in Santo Domingo, a bat flew into our bedroom window almost simultaneously with the extinguishing of the light, I was terrified. Clarence turned on the light and killed the bat with a broom, very easily, for bats are supposed to be blinded by light, though we have seen them dodge a broom or other weapon in a well-lighted room. But "blind as a bat" may not be a fallacy after all, for their sense of hearing is said to be abnormally acute. I was too terrified to sleep for ever so long and I absolutely refused to sleep in that house another night until all the windows were securely screened; all the doors and windows had been screened but the house had not been occupied for more than three years and screening deteriorates very rapidly in this humid, one might almost say saturated atmosphere. So, although many important matters needed attention, yet Clarence himself put brand-new screening, bought for the mill, on that window.

All the Santo Domingo houses are roofed with *calamina* (corrugated iron) and the Gringo homes are ceiled with *tocuyo* (native muslin), so in the Gringo homes, no matter how firmly the *calamina* is fastened down, the bats "nose" their way in; hence in our attics, they are born, creep, walk or fly—which would it be?—they play tag, they have committee meetings, all kinds of conventions, "sing fests," many, many quarrels, they marry and, I presume, they finally die; at irregular intervals, depending upon the frequency of their quarrels or conventions, we have a "bat clean-up": men are sent up from the shops, they take off a sheet or two of *calamina* and a wholesale slaughter of squirming, squealing bats ensues. I invariably take a long walk and do not return until I am sure the "party" is ended. Bats, you know, hang head down from the rafters by claws on their hind legs; always some of them escape but their "homing" instinct must be very pronounced for in an unbelievably short time we hear them above again and then in another few months, another "clean-up" is necessary.

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

Mr. Othick, our Mill Superintendent, rigged up a contraption with a fifteen-gallon carbide can and a pane of glass; he put the glass in the center of the can perpendicularly, filled the can half full of water and placed it at a strategic spot, where the most bats had been seen leaving the Casa Santo Domingo at dusk. The next morning, a few were found in the half next to the house, while *hundreds* were in the other division, proving the theory that bats are guided more by sound than sight; as they flew home, they collided against the pane of glass but were not able to cling to the smooth glass, as they are to rough surfaces, so they fell into the water and were drowned; and they do not drown easily as a sizable number of squirming, wriggling bats manifested that morning. This trap is being used again and again and does help a lot in "keeping them down" but their number is legion. We placed an electric light in our attic and this helped enormously, only a few in the remotest corners remained. I have an idea, which I think will solve the bat problem: to build a house with a solid, flat roof, then put a high, peaked roof of *calamina* on top of the flat house, using the flat roof for a sun porch. (We are trying out this idea now in Oroya, where we are building a new home, but we will screen in the entire "sun room" and may use it for sleeping quarters as well.)

The workmen, whose houses have the roofs unceiled, are not molested with the noise nor the odor of bats, and the odor, which is like that of mice, is even more disagreeable than their noise; to me, the German word, *fledermaus*, is much more expressive than bats, for a "mouse with wings" is about as repulsive as the loathsome thing really is.

When I first heard the bats in our attic, I asked Clarence, "What's that?"—and there were *so many* "what's that's?" those first few weeks—and he replied, "It is only pieces of *calamina* rubbing against each other," and he really thought I was gullible enough to accept that explanation and even now, more than four years later, when the bats are unusually noisy, I will say, "The *calamina* is rubbing dreadfully tonight," and he will answer, "Yes, I must have the carpenter come up to fix it," but instead of the carpenter, he sends

HIGH SPOTS IN THE ANDES

up the "bat catchers." Oftentimes, when we are returning from Casa Santo Domingo after supper, the bats fly uncomfortably close to our heads, in their pursuit of the myriads of moths, which hover about our "street lights," and the "silly moths" are "knee deep" at our windows, if perchance, we have forgotten to turn out the lights—and we almost never forget to turn out all the lights, for painful experience has taught us that bright lights attract not only moths but many other insects, that sting or bite—and many a time have I seen a bat pounce upon a hapless night butterfly, and then I instinctively put my hand to my hair, try to cover my whole head, for I have heard of bats getting into a woman's hair and being extricated with difficulty—those detestable hind claws catching hold, I presume; I know I would have hysterics if such a thing happened to me, yet I never wear a hat, except during the hottest part of the day, when I don a large Mexican sun hat, but I never leave the house without an umbrella and even though I bring the umbrella down close over my head, yet I still put up my free hand to protect my hair!

I am quite convinced there is no "sech critter" as a shadowless bat, about which I have read and which sounds romantic and poetical but the Santo Domingo bats, at least, are substantial, substantial enough to cast large shadows.

We have practically no flies and no mosquitoes; the mountain sides are so steep and the rains so heavy that there is no stagnant water where they can breed. But we have a pest much worse than flies or mosquitoes, the *manta blanca* ("white shawl"—so named, perhaps, because it has white wings, but it takes a microscope to see the wings), an insect so tiny, so diminutive, it can scarcely be seen with the naked eye, but ye gods! how it can sting! Vicious? The mosquito bite is but a "love pat" in comparison.

We had our first experience with this minute black (with white wings) gnat a few days—I should say nights—after our arrival: we were awakened early in the night by the most agonizing, burning pain on the backs of our hands, at the back of our necks and in our hair about the forehead; involuntarily one scratches as one would a flea bite but scratch-

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

ing intensifies the pain, increasing the original burning like fire to "liquid fire" if there is any such a thing. Turning on the light we discovered our hands and each other's faces literally covered with moving, little, tiny, black specks, which we immediately slapped to death; they are easy to kill for they cannot jump like a flea, but there were *thousands* of them; no matter how many we killed, battalions of them were eager to take their places. I suggested to Clarence that he try to sleep (for I could sleep in the daytime), while I fanned them off, but I might as well have tried to stay Niagara with my two puny hands, so we sat up in bed and whipped at them until daylight, when, "lo and behold," that entire army spread its wings and disappeared! It seems they keep union hours, working only on moonlight nights and then, from nightfall until daybreak; they do not fly high, so the people occupying the second floor of Casa Santo Domingo have not been introduced to Señora Manta Blanca and her numerous progeny, unless, perchance, some romantic swain may have taken a stroll by moonlight along Santo Domingo Creek, an experience which the most lovelorn would not care to repeat.

The following day I rigged up a "makeshift" canopy of mosquito netting, enough to cover our heads and hands, and we retired early that night, more than ready for a night's untroubled sleep—and did we get it? I'll tell the world, and did tell our little world the next day, that we did *not* sleep a wink! Those exasperating white-winged demons were right on the job and they came through that mosquito netting, fine mesh though it was, as easily as water runs through a coarse sieve. Someone had told us that a weak ammonia solution would relieve the itching and reduce the swelling (one of those bites would swell as big as a dime, and oh, boy! how each bite hurts!), so I prepared a generous supply of ammonia diluted with water and we used it all night long; there was no swelling, if you didn't scratch, but did you ever try to earn a gold tooth by keeping your tongue out of the cavity left by a recently extracted tooth? Likewise, it is absolutely unthinkable that there exists a person so strong-minded that he will refrain from scratching. How-

HIGH SPOTS IN THE ANDES

ever, I must add that one does finally become immune to the swelling, after a year or so of intermittent persecution, but to the pain, *never!* The following day I took down the marquissette curtains—those cherished curtains that were the pride of my heart—from the living room windows and out of those curtains fashioned a real canopy, five feet high, and covering the entire bed, with enough to tuck in securely all around. And this the *manta blanca* could not penetrate; tired out as we were, we purposely turned on the light and fairly gloated over their vain efforts to reach us, and then slept the clock around.

We have all kinds and sizes of spiders, gray, black, brown and pure white and from the size of a pea to a saucer—the “after dinner” variety—and one day, while walking along the track with Clarence, we saw a piece of gold about the size of a peanut; Clarence picked it up and it was a live spider!—a really beautiful spider. And the miners then and there told us that a golden spider presages unusual good luck. We have tarantulas and centipedes, horrid things, which I have seen only as specimens pinned in a box, for our cement floors tend to keep out crawling things, but both Mrs. Stacpoole and Mrs. Brooke have encountered them in their homes—in the bathroom, of all places—and how they ever got in is still a mystery.

In October, our spring here, we have myriads of caterpillars; the ground seems to be literally covered with them, and I most carefully keep my screened doors tightly closed. Caterpillars of various sizes and almost any color; one, about three inches long, of a bright green color, the color of grass at home in early spring, and all over its upper body are tiny green Christmas trees, about a quarter of an inch or so in height; we have dubbed this one our “Christmas-tree caterpillar”; and once, Clarence inadvertently brushed his hand on one—never again, if he sees it in time—and his hand smarted as if he had thrust it into cactus spines. I have seen a black caterpillar, four inches long, with the same tiny green trees adorning it. Early one morning I saw a brown one, two and one half inches long, with long black hairs, and among these hairs, between every two hairs, it

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

seemed, were diamond-like spangles, glistening and shining like dewdrops in the sun. What an exquisite trinket a jeweler could fashion from this caterpillar as a model! If only I could overcome my repugnance to handling the wormlike, crawling things, it would be interesting to find out what kind of a butterfly would emerge from these multitudinous varicolored caterpillars.

In another one of my early morning walks along the track, I observed what looked like a very thin, long snake; I carefully walked around it, hurried down to the mill, where Clarence was panning samples from the mine, and told him about this anæmic snake. He said, "Wait until I have finished this sample then we'll go look at your snake." He picked it up with a stick, measured it, and found it to be an *angleworm*, two feet and two inches long! What a fish Izaak Walton could have caught with such a worm! What a treasure trove for "hick" youngsters who dig fish bait for city-dwellers! But I am glad to say that to date we have not had "showers" of angleworms, such as I have seen after a rain on the University campus at Seattle—God forbid! A *shower* of two-foot angleworms! All the gold in the world could not keep me here.

Plenty of snails! I have often heard Frenchmen spoken of as "frog eaters" but not until we came to Santo Domingo did I hear such phrases as, "What a paradise for snail eaters; if Frenchy had picked up the snail I saw this morning, he would have had enough to eat for the whole day." Four inches seems to be the average length of our "everyday" variety and I know a teacup is too small to hold one; yesterday on my way to breakfast I saw a snail whose length was too much to go into a mush bowl.

Grasshoppers? Yes, but not in such abundance as snails or caterpillars, but their size makes up for the scarcity; three inches long would be considered a runt. I never see a grasshopper but what I am reminded of my "turkey days" on our California farm, how I used to herd them in the alfalfa fields for them to gobble up the grasshoppers—a twofold purpose, for while the turkeys were filling themselves to repletion, they were saving the alfalfa crop. While Santo

HIGH SPOTS IN THE ANDES

Domingo would be a "turkey heaven" as far as grasshoppers, angleworms and such are concerned, yet the heavy rains preclude any notion of going into the turkey business; we do not even try to raise any for our own use.

We have many small lizards, from three to seven inches long, and I have never seen a very large one; they are as quick as chain lightning and devour ants, bugs, etc., so one should not consider them a pest but rather a help, yet I do not like them in my home. After I had seen several—one in the living room, two in our bedroom and another in the bathroom (it may have been one and the same visitor)—and I could not figure out how they had gotten in, the carpenter was sent up; he went over the house thoroughly and found the cement flooring cracked in a corner of the bedroom—you remember I wrote you that our house is built on a rock foundation, but uncemented—and those "cute" little lizards had edged their way between the rocks, through the crack into our bedroom. Since then, I inspect our floors myself. My last experience with a harmless lizard is not a pretty story—I wish I could forget it—but there was a lizard in the washbowl in the bathroom and I called to Mrs. Stacpoole, who was visiting me at the time, and we poured boiling hot water on that helpless creature, and it shriveled up before our eyes, just as I imagine Rider Haggard's "She" did—Ugh.

One evening at Bella Pampa, Clarence, Lee and I, all three of us, noted at the same time an unusual lightning bug or glowworm or some such creature; on closer examination, we found we had a bug, about one and a half inches long, and which, apparently at will, switched on a green tail light, a red head light and yellow lights on its sides! We at once named it our "street car bug." I am aware of your incredulity, that it is something for "Believe it or not" Ripley, but we hope to bring a live one home with us, for, obviously, a dead one could not switch on lights. To corroborate this testimony of our "street car bug," I herewith add the name and address of two other witnesses—reliable, inasmuch as they are missionaries, whose word should not be doubted: Dr. and Mrs. M. B. Graybill, 145 Grand Ave.,

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

Escondido, California. While on their way home from visiting us, they saw one of these bugs, captured it, put it in a box with some leaves to feed on, took it to Juliaca with them and kept it for several days and then it mysteriously disappeared.

Birds, birds and more birds! Almost everyone coming to Santo Domingo for the first time is disappointed that there are so few birds but this is just a "seem so," for we have myriads and myriads of birds, but the heavy foliage makes it difficult for any but the practiced eye to see them. Mr. M. A. Carriker, of the Museum of Natural History of Philadelphia, who specializes in birds, spent some two months with us and in our vicinity last winter (your summer) and he took back to the museum three thousand specimens, all from here, and some, perhaps a dozen or more, that had never been classified before—a thrush, a curlew, and a grouse, peculiar or restricted to this locality; I do not remember the others. He receives a bonus for each unclassified specimen he brings to the museum, so we rejoiced with him at every new "find." He and his assistant, a Peruvian, whom he had trained on previous excursions, left very early every morning, brought in their trophies at noon, and devoted the afternoons to preparing the birds for stuffing and mounting: not only were the "innards" taken out but the craw was carefully emptied and its contents noted; the description of the bird, the locality and altitude of its habitat, what it feeds on, these make up the scientific data. They usually brought in from thirty to forty birds, quite a "bag," which kept them quite busy. We, too, have a small collection of birds, but they were "cured" by an Indian, a former assistant of a biologist who "did" the Maldonado section several years ago; they are not nearly so well done as Mr. Carriker's, hence not so life-like. Our doctor, who has an aptitude for that sort of thing, learned a lot from Mr. Carriker and now does very creditable curing and mounting.

We have the tiny humming bird and the huge condor, with all gradations between. We have seen both the humming bird and condor at 16,000 feet high in Bolivia. I have never seen a condor at Santo Domingo but we often

HIGH SPOTS IN THE ANDES

see them at Limbani and at higher altitudes on our way out and have even seen them at the seacoast, both at Mollendo and at Arica. Once when Clarence and I were riding muleback from Chojñacota to Laramcota, we counted twenty-eight condors in one flock; a gigantic, white-headed and white-backed one was leading the group and I told Clarence I was very sure they were headed for a convention, very likely to decide what to do about man, their most ruthless enemy. I have seen many beautiful humming birds here; most of the birds are of bright plumage but there are "drab" ones as well.

One of the most interesting birds we have seen has very long legs, long neck and bill, a slight body, weighing about one half pound, with the most varied and gorgeous plumage, and we at once named it the "butterfly-stork"—ornithologists would perhaps place it in the bittern or crane family. We have orioles, large black and yellow ones, in abundance, about half as big as a crow, but they make much more noise; their nests are of woven grasses, hanging from a tree, and I have seen them hanging from the cross pieces of a telephone or telegraph pole, the baglike nests about eighteen inches long. Along Santo Domingo Creek, we have seen egrets, herons and terns—in fact, we see most of "our" birds while riding from Santo Domingo to Bella Pampa.

The most beautiful of all the birds here, and unquestionably the most gorgeously attractive bird that I have ever seen, is the *tunqui*, a fiery, tomato-red bird, about the size of a blue pigeon; besides its coat of flame, it has a crest, like a fancy helmet, from the tip of its beak to the back of its head, reminding one of a feather fan, wide open, and a contrasting colored band of downy feathers all along the edge; like the golden spider, it also is a "sign of good luck" and although an excessively shy bird, yet I have seen at least a dozen of them and if you are fortunate enough to see one in flight, you will have seen an unforgettable, flaming streak of red. Tunquipata, where our first power plant is situated, was named for this marvelous bird, Tunquipata signifying "resting place of tunquis."

Another bird out of the ordinary is the so-called night-

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

bird, brown, about the size of a pigeon, too, with two beautiful tail feathers, each more than two feet long; Lee brought one home from one of his trips "out." This bird has a singular cry, a peculiar call, which we hear occasionally very early in the morning, usually followed by the noise of its pouncing on a returning bat—more power to the night-bird! There are wild chickens, called *gallinas de la montaña*, which are about the size of our Leghorn hen, and which are mighty good eating; and wild turkeys, called *paujil*, delicious eating, but extremely difficult to "pot" as they fly high and in the densest foliage, making them almost invisible.

In our camp and all along most of the trail almost to Quitun, there is a small bird, very numerous throughout the year, which to me distinctly says, "Be quick, be quick"; every morning as I go to breakfast, from one to a half dozen of these little birds call out to me, "Be quick, be quick," and if I retort, "Be quick, yourself," quick as a flash the reply comes back, "Be quick, be quick." While visiting us on two different occasions, Mrs. Bell, born optimist, insisted the bird said, "Why kick, why kick?" and Mrs. Graybill, a nurse, declared the bird said, "Why sick, why sick?"; Fräulein Krause, our capable housekeeper, asserts that it says, "Sei flink, sei flink" (be active). I presume to a short-sighted person, it would say, "Why blink, why blink?" and to a flighty passer-by, "Why think, why think?"; anyway, there is a large variety of choices to take from the imagination-box.

We frequently see a smallish bird with seven different colors: red, blue, green, yellow, orange, black and white. We are supposed to have a bell bird—we have heard the bell call many times, but have never seen the bird.

One afternoon while gazing out into a downpouring rain, I saw fourteen swallows—I counted them—perched at even distances apart on the telephone wire in front of our house; their little heads were bowed to the driving, drenching rain and they made me think of Wilson's "Fourteen Points," how they, too, had been buffeted about by the fogs of suspicion and the mists of prejudice. Then the rain slackened and I saw the white spots on their heads and these, with their long,

HIGH SPOTS IN THE ANDES

shining, black coat tails, made them look absurdly like Pringle's Minstrels and when one of the "end men" saucily cocked his head to one side and seemed to say, "Come on out, the weather's fine," I lost my meditative mood and, hastily donning slicker and grabbing umbrella, I sallied forth, but not for long—again, the rain came down in "bucketfuls," and we have not yet found slicker nor umbrella that will withstand these heavy, tropical rains. And as I stepped, dripping wet, on the porch those fourteen swallows, as if fearing a scolding, flew away in orderly formation, one at a time, disappearing like question marks in the saturated, half-fluid air.

Of course, there are many parrots—macaws with their long hooked bills and very long wedge-shaped tails, the cockatoo, parrakeet and charming love birds, all brilliantly colored; the gaudy (blue, yellow, red and black) toucan with his absurdly immense beak. The parrots and their cousins are much oftener heard than seen; almost every day we hear great flocks of parrots—such a tremendous chattering—but it is not easy to see them as they persistently keep up very high in the densest foliage.

Shortly after we arrived, Muto San gave me a pair of handsome young parrots, presumably the talking kind; they had been brought in from the "inside" (Maldonado) by a friend of his. I delightedly planned to teach that good-looking, promising young couple Spanish, English; German, French and perhaps a little Quechua—an ambitious linguistic program! I had them exactly two weeks and had merely taught them to grasp a slender pole or stick when taking them to their roost for the night; they had the run of the kitchen and dining room (we ate at the Casa Santo Domingo) and also of the patio in the rear. At the end of two weeks, I, myself, personally returned that now "out-of-my-good-graces" young couple with a full explanation: the corn which I fed those parrots brought a horde of mice! I do not like spiders, nor snakes nor bugs, but for downright, senseless fear, that feeling cannot be compared to my aversion, my dislike, my abhorrence, of mice; you remember quite well, Iva (and Marie, Leah, Gracie, Katharine, Sue, Rose, Ollie,

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

Adelaide, Ethel, *et al.*) the several instances of hysteria, occasioned not only by a live mouse but by a dead one as well! As a child I could not bear to look at a picture of a mouse—and eat a chocolate mouse? Ugh, I'd starve first. Whenever we move into new quarters, the first thing Clarence must do is to make the house as mouse-proof as is humanly possible and we had no mouse in this, our first home in Santo Domingo, until the advent of those parrots. One morning, about the tenth day after I had begun my parrot school, I started to pick up my sweater from the couch and there, comfortably ensconced on my sweater, was a big mouse! I gave one terrified yell and fled, slamming the door behind me; I hastened to the track and indignantly paced back and forth until Clarence came out of the mine. When I related the outrage to him, he at once accompanied me home to chase out the intruder but it could not be found; he suggested my scream had sent the mouse up the chimney of the fireplace, but where did that mouse get in? If it could escape by the fireplace, then it could enter the same way, so a carpenter was sent up to seal the fireplace so tight that an ant couldn't find ingress. But that first mouse was but the beginning of the invasion—the "Pied Piper of Hamelin" had nothing on those parrots, or rather on the corn that fed them; I became afraid to open a door, afraid to stay in the house, afraid to open a drawer, and then, when it dawned upon my frightened senses that those to-be Spanish, English, German, French, Quechua-speaking parrots were to blame for all those mice, then those birds never stood a ghost of a chance to become linguists—under my tutelage. Muto San sent them to friends in Arequipa and I presume they are now speaking Spanish and Japanese. I had the kitchen and dining room thoroughly scrubbed and disinfected; a carpenter looked the house over, inside and outside, sealing any aperture large enough to permit a flea's entrance, and we have had neither mouse nor parrot in our home since.

Monkeys—lots of them—but, like the birds, they are heard rather than seen; they manage to keep pretty well out of sight but if you hear their chattering and watch very carefully, you may see an occasional one as the bough of a tree

HIGH SPOTS IN THE ANDES

bends with its weight—more often you will merely note the bending of the bough. Dr. Graybill killed five, three of them at Tunquipata; he cured and stuffed one, placed it in the outside window sill of our living room, and when Clarence came home he was so startled by its resemblance to a human baby that to this day the very thought of eating monkey nauseates him.

Snakes? What color and size do you prefer? The “stock” size is about four feet long and the color a vivid green but we can accommodate you in under- and over-sizes and in various solid colors, as well as spotted, mottled, etc. The first snake I “met” in Santo Domingo was on the track to the mine, where I take my daily walk; the snake was lying full length between the two rails and I thought it was the stalk of one of the giant-leaved plants which abound throughout the *montaña*—it was the identical color of the huge *hualusa* (Japanese potato) that grows wild along the track and which is also cultivated in camp. Mr. Maycumber, our metallurgist, measured the leaf of one of these *hualusas* for me—it was twenty-five inches long and twenty inches at the widest part, this being just an “average” leaf. The Othick girls brought one to the house for measurement that was thirty-two inches long and twenty-four inches wide, and not to be outdone. Mrs. Nugent brought an *espandoña*, a leaf four feet long and seven inches wide. I stopped to look at this “seem-so” stem but when it began to wriggle I made a mighty quick “get away”; it was killed by an ore car, was four and a half feet in length and about the diameter of common garden hose. This species is not poisonous.

Our doctor, who has been in the tropics more than twenty-five years, is our authority on snakes, bugs and ’most everything that grows down here. He says the dark green snake is exceedingly venomous but that we have very few poisonous snakes at this altitude; that between Tunquipata and Sagrario (you will recall that Oroya and Bella Pampa are between these two places) there are many poisonous snakes, even the dread “bushmaster,” a huge, exceedingly venomous snake that no one that I know has seen in that vicinity, but many that I know have asserted there must be a bushmaster

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

farther back in the jungle from the trail which has attacked and killed two mules recently; their carcasses—what was left of them—gave grim evidence of a horrible death, but at my suggestion that a searching party ferret out this terrifying serpent, I was invariably told, “But I have lost no bush-master.”

Three natives, including one woman, have been bitten by snakes in our camp but there have been no fatalities—a “shot” of potassium permanganate makes the victim quite ill for an hour or two and then he is all right again. Yet at Chabuca, a neighboring mine, considerably higher than Santo Domingo, quite a few extremely venomous snakes have been killed and day before yesterday an Indian died there. Fortunately, our doctor had gone up there to vaccinate anybody and everybody who feared smallpox and this Indian shouted that he had been bitten by a snake, that he had cut the snake into three pieces; the doctor attended him, put him to bed and at frequent intervals was told that the man was resting quietly; at two the following morning he was called and told that he was dead. The man had two bad cuts or bruises on his head, one as though he had cut himself on a sharp rock in falling face downward and the other on the back of his head; the snake bite wound was clean and not swollen, so the doctor concluded he did not die from the snake bite but from hurting himself during the night—the walls of the house are of sharp rock; but I presume the story will always be that the Indian died from snake bite.

My second and most thrilling experience was at my own home: I opened the front door and there, right on the threshold, was a terrifyingly big snake, a long, dark green one, it seemed to me at least ten feet long. I slammed the door, myself inside, but evidently he did not intend to let the slamming of a door disturb him from the fine sunning-place, for I watched him fully ten minutes from my window, hoping that Clarence or somebody else would come along to kill it; and then a *chico* (small boy) came from the hotel with a message and when he saw that snake he jumped 'way up in the air and yelled, “*Vibora, vibora!*” Forgetting all about the message, he turned and fled, and I did not blame

HIGH SPOTS IN THE ANDES

him a mite for he was barefooted; but that strong, vigorous yell frightened the snake and quick as lightning it disappeared into the canyon at the side of the house. This same snake, at least we think it was the same one, came out to sun himself in the same vicinity several times, until it was finally killed by a workman; it measured five and a half feet long and was somewhat thicker than the one I had encountered on the track.

In all, I have seen fourteen snakes in our more than four years in Santo Domingo and I know we saw more than twice that many in the six months we were in Arizona and a majority of those were the deadly sidewinders and other species of rattlers. Of course, I keep on the well-trodden paths and then, too, we keep the underbrush and high grass all along the trails in camp cut down. The first cutting gave forth seven snakes just between our home and Casa Santo Domingo, fifteen in the entire region thus denuded; each cutting has produced less and less until the last few have yielded no snakes at all. We are just within the border or edge of the *montaña* or "Green Hell," so we do not have the enormous snakes, the anacondas and boa constrictors and such, that one hears and reads about farther down in the Amazon Basin. In common parlance down here, *vibora* means a poisonous snake, *culebra*, non-poisonous, while *jergón* is used almost exclusively by the Indians to denote any poisonous snake and *juegetón* (playful) for the bright-green and non-poisonous ones.

Now, shall I tell you a few choice snake stories, all vouched for, merely to give you pleasant dreams?

1. Mrs. Stacpoole says a native at Chabuca told her those long, light-green snakes are very playful (hence their name of *juegetón*) and that they love to wrap themselves about a person's ankles and then unwrap themselves quickly and run away—as if it were a game—how would you like to play tag with a snake?

2. An Indian, whose job it is to keep the *toma* (intake) of the pipe at Tunquipata power plant clear of *débris* (after heavy rains the screen becomes covered with leaves, pebbles, etc., and it must be cleaned to let the water through) this

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

Indian, barefooted (he had saved enough money to have a pair of "store" shoes but was taking care of them for fiestas), stepped on what he thought was a slippery log, but when it began to wriggle from underneath his feet, he let out a terror-stricken yelp and ran for dear life back to his house, put on his shoes, and has gone shod ever since, and we were without lights or power for more than a half hour, when usually fifteen minutes suffices for the wheels to turn again. The Indian swears the snake was as big around as a stove pipe.

3. Mr. Maycumber, while directing the work of remaking a trail that had slid into Santo Domingo Creek, about two kilometers below the mill, ran across three young snakes—baby snakes—only about eight inches long, light green on top with three of the prettiest gold stripes you ever saw (his own words), and yellowish underneath; the trail makers had evidently disturbed a nest of snakes. This species, related to the cobra family, is extremely poisonous. What with gold spiders and "pretty gold stripes" on snakes, you will begin to think this country is "lousy" with gold and Clarence says it is.

4. Mr. Maycumber killed a stubby snake about three feet long while the trail was in the remaking; the snake had a brick-red head and its body was spotted black, red and yellow, considered very venomous.

5. Yesterday, while walking along the track, I saw a dead snake, which had been thrown to one side of the track; it was two feet long but very slender, had black and tan spots on the upper part of its body, white underneath, had a diamond-shaped head and I was told it belonged to the cobra family, whose relatives, numbering more than twenty, are like the cobra extremely poisonous.

6. Mr. Othick, our millman, while in the Beni district (the Beni River occupies the same relative position in the Amazon Basin to the Madre de Dios River as our Inambari River does), was walking along a timber path and he almost stepped on an enormous, yellow snake; he had a Cuban machete, a kind of sword that the Cubans used in the Revolution, and with this, he slashed down with all his might

HIGH SPOTS IN THE ANDES

and cut the snake completely in two. He did not wait to see what would happen but kept right on going but he could hear the part with the head threshing furiously through the brush. He said the part he cut through was as thick as his thigh and it was not the thickest part. An Indian who came along a little later told him it was a yellow constrictor, that lives on monkeys, and attains a length of twenty to thirty feet, and that the part cut off measured four and a half feet.

7. "Swiftwater Bill" Gates tells of a trip down the Inambari River in a forty-foot canoe with twenty Indians paddling and they met a titanic snake, twice the length of the boat; Gates hit it with a pike pole and wanted to stop to kill it but the Indians were so terrified that they paddled furiously several kilometers beyond the agreed camping place, although a few minutes before meeting this huge snake they had almost mutinied, because they were too tired to go on.

8. Mrs. Nugent, the Chilean wife of our Peruvian engineer, related this and the following story: In the Province of Chiquitos, Department of Santa Cruz, three youths went hunting; one of them, named Caillaux, a friend of her mother's. The youthful hunters went to one of the oases of vegetation in the pampa; in this oasis was a large swamp and they decided to separate to see who could get the most ducks and turkeys, agreeing to meet at a designated place three hours later; his two companions arrived at the meeting place but no Caillaux and they waited a half-hour, then fired their guns several times, calling to him between times. Receiving no response, they started out to hunt for him, and on the opposite side of the swamp they saw Caillaux in the act of discharging his gun but rigid as a statue, absolutely motionless, unable to move, paralyzed with fear—for but four feet distant was a monstrous, swaying snake, its enormous head, with tongue sticking out and glittering eyes, raised five feet above the ground, the rest of its body lost to view in the brush. The two boys also remained immovable and did not shoot until the snake made the gesture of throwing itself on its victim. After its death struggles had ceased, they measured him: thirty-six feet long and four feet in circumference! Its head was the same shape as that of a gray-

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

hound, but much, much larger. This snake, called the *sicuriu*, is amphibious, is found only in these *pantanos* (swampy places in the cattle-raising regions of Bolivia and Argentina), lives on horses and cows and sleeps from three to four months at a time. It is the most dreaded of all snakes, is black on the upper part, has a yellow belly, and reaches as much as forty feet in length and from three to six feet in circumference. When Caillaux found himself free from the paralyzing, supposed-to-be magnetic spell under which the hideous serpent had "charmed" him, he, although a young man, burst into tears and cried hysterically for two full hours, so terrible had been his nervous tension. The doctors who had been called in to attend him when he was brought home said that but for his uncontrollable weeping he would have died from fright or gone insane.

9. In the same locality, a servant on horseback was sent out to bring in the cattle; at noon, when the heat became almost unbearable and he was near a swampy place, his horse gave a sudden lurch, almost unseating the rider; looking around to see what had caused the horse's fright, he saw one of these huge, repulsive *sicurius*, its body raised as high as the horse, its hisses almost stupefying with terror both horse and rider; but with a cut of the lasso, the horse bounded off and the snake started in pursuit. The horse stumbled and fell but the man jumped off, and ran and ran until he came to a very fragrant tree, the *jacaranda*, under which no snake, no animal, no insect will go—its fragrance is supposed to put one asleep forever. From this tree, the man saw the snake wind itself around the horse, crunching the bones from head to hoofs; when the horse lay still, the snake began throwing out saliva with which it covered the dead animal, and the reptile swallowed the entire horse up to its head, the saddle slipping off in the process; then, exhausted, it fell asleep. It was thus the rescuers found the snake when they came to investigate the servant's delay. They killed the snake, which measured twenty-two feet in length and, distended by the horse, its circumference was six feet. Undisturbed, the sun would have rotted off the horse's head and the snake would have digested that mountain of horse-flesh at its leisure.

HIGH SPOTS IN THE ANDES

10. Mr. Maycumber tells a similar story of a friend of his, who was taking a mule train from Santa Cruz, Bolivia, to Argentina: a mule became mired in the *pantano* and it seemed impossible to extricate it; as it was getting dark, he decided to go to the next camp and return with more men, ropes, etc. He, with his assistants, returned in five hours and instead of the mule, found a gigantic, gorged snake, that had swallowed all of the mule except its head.

11. Mr. Nugent, while on a surveying trip, riding along the trail about an hour's time this side of Quitun, saw a huge snake in the trail just ahead of him. What to do? He had a gun but was afraid to shoot at the snake, for fear the shot would scare the mule, precipitating him and itself down into the steep canyon, for the trail is narrow here; the snake looked too enormous to tackle with a stick, being more than two meters (more than six feet and a half) long and at least four inches in diameter; it was mottled, black, brown and white, had a diamond-shaped head, slender neck and tapered off with a very slender tail, hence it was undoubtedly a *jergón*, so called from the loosely woven native material of wool in those colors. Mr. Nugent, in his uncertainty what to do, whistled, and the whistling startled the snake and it slipped hastily over the precipice. This is the first first-hand, direct evidence of so large a snake in our vicinity.

I have told you of thousands of *manta blancas*, millions of bats, so now of ants I'll have to use billions, that now familiar word when speaking of war debts or treasury deficits; yet I believe the loss caused by the destructiveness of ants far exceeds the billions of war debts and treasury deficits combined. I recently read in the *Reader's Digest* an article taken from the *Scientific American* which states that there are 6000 kinds of ants but only four do the most damage; I feel sure we have all 6000 varieties here and unquestionably have the four destructive ones; of the latter four, probably the termite and the *chacuri* (Quechua for pack ant) are the most injurious. The termite is a tiny, white ant of a soft-bodied, sluggish type and it cannot stand exposure to the sun or direct light. In Bella Pampa a complete 600 H. P. hydro-electric plant was stored in a warehouse for five years before

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

the plant was installed. The insulated electrical equipment was stored in zinc-lined boxes; every box, which contained equipment insulated with a special kind of insulation (for excessive humidity), had been perforated and the insulation destroyed—the termite with its billion associates had eaten, bored, or in some manner made its way into those zinc-lined boxes and banqueted on that especially-designed insulation with so much appreciation that when, finally, the plant was ready for the coils, “*no hay*”—there were none, or at least, they were absolutely worthless. A telegraphic order to the United States for replacement was necessary, involving a direct loss of several thousand dollars and an indirect loss, due to delay, that totaled much more.

At Santo Domingo a large 75 H. P. motor was put out of commission by the termites: one morning the motor refused to start and fire broke out behind the switchboard; on examination it was found that the termites had built a nest of wood pulp, which they had cemented with a sort of mucilage, excreted from their own bodies; the nest was on the three rubber-covered wires that carry the current to the motor; where the wires passed through the nest, the termites had destroyed the covering and had eaten up almost all the copper as well! I think they must have a sort of saliva which is not only destructive to wood but to copper and zinc as well. We have had the same difficulty with termites in the sawmill and in the shops.

A first cousin of the termite in Bella Pampa preferred books to machinery and a relatively large, well-chosen library housed in the same building with the drug-store and doctor's office was thoroughly gone over and digested; most of the books were too far gone to be even recognizable and these were thrown into the Quitun River, while the few that were salvaged looked like tatterdemalions. I was particularly anxious to save the five volumes of a biography of Mark Twain but two of the five were hopelessly riddled and there are many missing paragraphs, even whole pages, in the other three. Don't you think these book-termites are the real “book-worm”? Here at Santo Domingo we varnish the cover of every book, which helps a lot to keep these voracious

HIGH SPOTS IN THE ANDES

"readers" out, but sunshine and air, that is, using them, is the best remedy.

The *chacuri* or pack ant (our crews of outside laborers, those that carry timber for the mine, those that bring in wood for the hotel and bakery and those who work on the trail, are locally known as *chacuris*; I have not heard them called anything else, and for more than a year I thought the ants, carrying blades of grass, were called *chacuris* after our carriers of wood, rather than vice versa) is a medium-sized, red-bodied ant with the head of a little darker shade; they occur in large colonies and apparently are efficiently organized; they travel long distances from their nests and when they find a leaf to their taste the vanguard proceeds to climb the tree or bush and the rearguard picks up the leaves; at the command, the *chacuris* start for their nest.

Once, while walking along the track, I looked down and the whole earth seemed to be moving. I looked up and everything around and above seemed normal. I looked down once more and, lo and behold! the whole earth was moving again. I was not dizzy nor did I have a fever; in fact, I was feeling unusually fit, but on closer observation, what seemed to be moving earth was an army of ants, each with a blade of grass ten times its length, in military formation—the "wops" carrying the leaves—and plenty of officers, who were easily distinguished by their larger size and, of course, they were carrying no burdens. Many people walking along the track, the ore-cars with their heavy loads pushed laboriously to the mill and returning empty, did not seem to hold up the march, march, "right foot, left foot," at all; I watched them nearly an hour and no matter how many were crushed under the feet of men or under the heavy car wheels, there seemed to be an inexhaustible reserve to replace their dead comrades. Where they were going and whence they came, I was unable to find out, nor has my curiosity ever been satisfied; always they travel single file and apparently have a definite goal; I have also noted the returning file, that is, those who have delivered their load and are coming back for another one—these workers returning from the nest occasionally stop as if to smell the loaded

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

workers and then hurry on, perhaps assuring themselves they have not erred in finding the right road. I have watched them many times not only on the track but on the way to Casa Santo Domingo; Mr. Maycumber says he has traced one band for five hundred feet before he found its nest. Here in our camp, the *chacuris* are especially destructive to our roses or to anything we try to grow.

We have, of course, the ubiquitous house ant but as we have no kitchen nor dining room this ant has not bothered me much. Whenever I have forgotten to cover a fruit dish or bonbon receptacle, almost invariably I have accumulated an enhancement of these tiny ants but if I cover all food-stuffs I never see one. However, I do not think this ant would be included in the "Big Four."

The *Readers' Digest* mentioned the carpenter ant as one of the destructive four. I do not know it *per se* but there is something that resembles an ant that is boring holes in the walls of our bedroom, bathroom and living room. One day I was driving a nail in the wall, when it went in so suddenly that I feared the nail, hammer and myself, all three, were about to be precipitated right through the wall! I'll admit that is hyperbole, but you may imagine my surprise when the nail went through the wood as if it were butter. In spots, the walls are fairly honeycombed with tiny holes and some of the holes are not so tiny either, for I pointed out one to Clarence the other day and he plugged it with a match. We shall have to have a new home some day; this one must be at least fifteen years old, but its location is so attractive and pleasing that I have suggested to Clarence we merely replace the house, board by board, but innovate the flat roof, with the second corrugated iron roof extended a story above.

The fourth kind of ant lives in the *palo santo* tree; the local *palo santo* tree is a species of palm, ten inches to twelve inches in diameter, and shoots up to fifty to sixty feet high without any branches, having merely a circular bunch of leaves on top. It is hollow but is divided inside into compartments, "apartments or flats," by partitions about a half inch thick, and these dry divisions make ideal homes for

HIGH SPOTS IN THE ANDES

ants. The bite of this ant is very painful and it does not hesitate to attack any living thing that comes near its tree. One can always recognize the *palo santo* tree, for underneath, the full circumference of its top, there is not a blade of grass, not a living thing; you may, perhaps, see the bones or skeleton of some poor hapless creature which wandered too close within the unholy circle and could not get away. Recently Mr. Maycumber had to clear off a piece of ground for the chimney of the calcining furnace and there were about twenty of these *palo santo* trees within the area; the Indians complained bitterly of the ants, which attacked their bare feet and "Marathoned" up their legs; in fact, I think they were compelled to run for Santo Domingo Creek to take a rare but this time a welcome bath. Mr. Maycumber had all the wood from this area cut in firewood length and sent to Casa Santo Domingo and we came very near losing the cook, the baker and all the kitchen help!

Now I will tell you a gruesome tale of the ant of the famous, or rather infamous, *palo santo* tree: a white priest had angered a community of Indians beyond endurance, so during the night a committee of the Indians seized the priest, carried him to a *palo santo* tree, tied him securely to the tree and left him to the implacability of the ants, having first removed all his clothes. The nights in the tropics are cold and the Spaniard shivered from the temperature but he shivered more from the dread of the ants, for he knew, unless succor came before sunrise, what his awful fate would be; he was tortured by the thongs that bit into his flesh, frightened by the calls and howlings of wild animals throughout the night but he was terrified at the certainty and frightfulness of being eaten bit by bit by these voracious, stinging ants, until death released him from his intolerable suffering. At daybreak the entire community of Indians, men, women and children, adamant to his shrieks of pain and terror, came to scoff and mock him, but by ten o'clock the ants had so thoroughly done their hideous work that only the skeleton of the hapless priest remained. Ugh!

We had heard of the notorious *palo santo* tree (made notorious by its terrifying tenant, for the tree itself is graceful

BUTTERFLIES, BATS, INSECTS, BIRDS, ETC.

and pretty) while still in Bolivia, where we also heard similar frightful, shocking tales, hence we needed no warning to give every *palo santo* a wide berth.

A very bothersome pest is the *zapacala* or winged cockroach, which gets into everything, literally everything; there will be colonies under the insulators of the high tension power line, in apparently well-sealed boxes, in crevices and crannies from the "parlor to the kitchen," but while there may be many in the parlor, they are in battalions in the kitchen. It varies in size from a grain of mustard seed to giant ones, an inch or even two inches long; it has been known to eat holes in silk neckties, carefully folded and placed in books for pressing and to keep the dresser drawer neat; to eat holes in the leather band of a hat, to practically riddle a leather coat and to eat wads out of a loaded shotgun! The front width of a brown silk dress of mine, hanging in the closet, was perforated with holes; I put some brown cloth underneath the damaged width and embroidered conventional designs, here, there and everywhere, and never have I had a dress that brought forth such audible expressions of admiration! One time the electric bell, used at the table in the dining room of Casa Santo Domingo, began to ring at two o'clock in the morning and it rang intermittently throughout the night; an investigation at breakfast time showed that across the terminal connections of the bell was the great-great-granddaddy of cockroaches; he measured almost two inches in length and had got across the wires leading from the battery to the bell, thus making a short circuit, the current passing from one wire through his body ringing the bell. The cockroach was still alive and was waving his legs frantically but he was too weak to crawl away. The batteries had been completely discharged and the chemical solution had to be renewed. We trap the *zapacalas* by placing tall oatmeal cans baited with a little lard, which they especially enjoy, in the places where they are the most abundant. Sodium fluoride is recommended by the United States Department of Agriculture to get rid of them but sodium fluoride is exceedingly difficult to procure in this man's country; Arequipa yielded none, while we were able to get

HIGH SPOTS IN THE ANDES

only a two-ounce bottle in Lima. We have tried sprinkling boracic acid plentifully at night on tables, shelves, etc., and it does help to eliminate them. We can only continue to keep everlastingly after them and thus prevent their carrying off the entire camp.

Did you ever see a leech? Recently a friend and I were returning from a walk below the mill and as we ascended the steps under the platform, where the ore is dumped into bins, we saw what looked like a baby snake, a horrid, repulsive thing. Mr. Maycumber happened along and he, too, at first thought it was an infant snake but on closer examination, told us it was a leech. It was about eight inches long, about a half inch in diameter in the middle and tapered off somewhat at both ends; a slimy, abhorrent creature, whether of the medicinal or common variety none of us knew.

It seems too bad to end this letter with such an unpleasant, odious object as a leech; I should have started out with snakes and leeches and ended with the birds and butterflies, but the mail leaves in the morning and I certainly haven't the time, even though I had the inclination (which I haven't), to rewrite such a lengthy narrative and I hope the reading will not be so exhausting as the writing has been, for, frankly, I am tired. My next will be a mere hodge-podge—copies of the "round robins" which you have asked for.

CHAPTER XII

MISCELLANEOUS "ROUND ROBINS"

Santo Domingo Mine, November 23, 1932.

SWEET MARIE:

Iva says to send this letter to you first this time as a "sop" for her not having sent the last installment more promptly. I have just answered your recent letter but this is the usual "bunch" chronicle, which will be a sort of "hodge-podge" of the "round robins" sent to our folks, but were not sent to "you all" at the same time, for some reason or other, but which Iva heard about from my sister Annie and she has asked me to "round up" the copies, in order that you will not miss any of the doings that were considered worth "writing home about."

Tomorrow is Thanksgiving Day and our fourteenth Wedding Anniversary. We always celebrate the former by a dinner to the staff and their families but this time, due to the enormous number of recent landslides and the consequent almost impassability of the trail, a good many "trimmings" for the turkey may be lacking; Clarence says it will be a sort of "Valley Forge" Thanksgiving, but while we may not have a great variety of "eats," yet we have an abundance of other things to be thankful for. Now for the round robins:

"PATIENCE"

Tirapata, February 23, 1930.

DEAR FOLKS:

The Anglo-Saxon needs to come to South America to learn patience and if he does not learn it here, he is hopeless. I am writing this at Tirapata after being here three days to rest up from one of the most strenuous trips of my life. Usually when leaving Santo Domingo to come "out," we feel

HIGH SPOTS IN THE ANDES

that after we arrive at Huancarani the worst is over, that is, as far as physical discomfort is concerned, but we made the trip to Huancarani quite comfortably, without untoward incident and in record time. The "we" were Muto San, Carmen Christen, her sister Leonora and myself. We left S. D. early in the morning of February 14th and arrived at Huancarani the following day, expecting the truck or car to be waiting for us, but not only was there neither truck nor car, but Sr. Olivari, "mine host" of this hostelry, gave us no encouragement when a car would arrive; there had been no truck since the previous Thursday (this was Saturday) and there was no prospect of one arriving for several days, perhaps not until Carnaval, early in March, and we just must have patience! However, he served us hot soup and the inevitable spaghetti, which made us a little more receptive to *patience*. He heated rocks for our feet—you remember I wrote you the floors are of rocks and that the altitude is 13,625 feet above sea level, so Huancarani is not exactly a place one would choose for a vacation, nor one in which to exercise the virtue of patience. With his spaghetti board for a table on our laps, the four of us huddled around those hot rocks, played bridge, told fortunes, demonstrated card tricks or just sat until supper time, which was also bedtime; and at frequent intervals, "Signor" Olivari did not forget to advise us to have patience.

Muto San and Olivari went *viscacha* hunting Sunday morning, while the girls and I took a walk up the auto road, hoping to meet the car or truck, but when it began to rain we scurried back to the hot rocks and spaghetti board. The men returned with no spoils, and as the weather was not inviting for outdoor sports we dittoed the previous day's proceedings, nor did Olivari forget to ditto the "have patience." Monday was foggy and rainy and we had about reconciled ourselves to another's day hovering over heated rocks, when we heard the honking of an automobile and the blankets over our knees were hurriedly flung aside and I fear no care was manifested for the precious spaghetti board, as we all rushed out of doors to have our eyes gladdened by two trucks coming down the hill: Cuadros, Head of Trans-

MISCELLANEOUS "ROUND ROBINS"

portation from Tirapata to Huancarani, was driving one truck and Germán, his helper, the other. Cuadros was taking a mule train to Santo Domingo, so we were confided to Germán's care. But the two girls' mother and youngest sister had come from Tirapata, too, to meet us; Mrs. Christen had not understood that I was coming out with the girls and she would never, never permit her daughters to travel unchaperoned a hundred miles, the distance from Huancarani to Tirapata. The mother and sister had had very trying experiences, having left Tirapata very early Saturday morning and by dint of much hard work, that is, of hoisting the truck out of mired stretches, crossing almost impassable rivers, skidding (they say skating here) along watery roads, etc., they reached Triunfo that night; repeating with but slight variations the experiences of the day before, they managed to get as far as Crucero; leaving Crucero early in the morning, they arrived in Huancarani about noon, Monday, tired, cold and hungry. Knowing with fear and not a little trepidation what was before us, yet we were unanimous in deciding to be on our way as soon as possible, so banqueting on hot soup and spaghetti, but omitting the speeches, we then hastened away to face whatever difficulties presented themselves. Mrs. Christen and I sat in the enclosed cab with the chauffeur, while the three girls, Muto San and two belated passengers sat on improvised seats made of boxes, suitcases and what not under a tent in the rear.

It snowed all the way to Crucero and Mrs. C. and I took turns at wiping the windshield; we arrived at Crucero earlier than we had hoped to do, so decided to push on. Here at Crucero we took on a sergeant and his woman. Mrs. C., knowing the customs of the country, laid in a supply of coca and alcohol to give to the Indians, in case we should need their help, and an Indian will work for coca and alcohol when all kinds of money would not make the least impression. About a league and a half from Crucero, we had another extended lesson in patience: from the time we had left Crucero, the road was almost continuously covered with water and the chauffeur had to "smell his way"; at the end of the league and a half, we had to cross a stream that

HIGH SPOTS IN THE ANDES

ordinarily is but a rivulet but had become a swollen, angry river; we succeeded in getting about two thirds across, when the truck mired in the mud; the muddy water rushed over our feet and ankles, but Germán confidently said, "Just a little patience and we'll soon be across." He stepped on the starter again and again but the truck would not budge, except to tilt a little more dangerously; in the meantime the helper had rolled up his trousers, plunged into the icy water and was frantically digging under the rear left wheel; the water came pouring in higher and higher, for the river was rising, and then Muto said the women must be carried out. Germán and his helper staggeringly carried us six women to the shore, and it was no light task, for none of us were "feather weights" and there was the strong current to contend against as well, but fortunately the distance was not great. As each one of us scared women was deposited on the cold, wet ground and in a cold, driving rain, each one of us was advised to have a little patience and the car would soon be out.

But it is hard to be patient with wet feet, wet clothes, unprotected in a cold rain and unprotected from a bitterly cold southern wind and all that one could do was to watch the apparently hopeless efforts of the five men to get the truck out of the rut, indeed, their efforts seemed but to make the truck sink still deeper; and all five of these men were above their knees in that cold, swirling, mad, muddy water. Carmen called our attention to a group of Indian huts about a kilometer down the road and a little to the left, so we six bedraggled women concluded it would be better to seek refuge from the rain and wind while waiting, especially since we could do nothing to help; we attempted to run races in order to get warm but running races at 13,000 feet altitude "just isn't done." Eight big, gaunt dogs came yelping and snarling to meet us but two Indian women called them off, while an old Indian man came to meet us and courteously and kindly invited us to enter his hut, which, fortunately, did not include a kitchen, hence there were no chickens, guinea pigs nor other animals to share the

MISCELLANEOUS "ROUND ROBINS"

room with us. Our host brought two boxes and these with a bed on one side of the wall gave seats for all of us.

Our refuge hut was about six feet by ten feet, made of rocks and mud, with a thatched roof, a mud floor and with but one small opening, through which we stooped to enter—there were no windows. A bench about two feet wide, built of rocks, running the full length of the six-foot wall, was the bed; on the opposite side a few sheepskins were piled on the floor—these comprised the furnishings; but it was a shelter and a king in his palace could not have made us feel more welcome. An Indian woman brought us hot tea made of native herbs in an earthen urn and with but one tin cup and each of us took a "swig," profoundly grateful for its warmth, nor did one of us grimace at the dirt. Our host brought more sheepskins for our feet and a couple of native-woven ponchos for wraps. He spoke practically no Spanish but Mrs. C. and the sergeant's woman spoke Quechua and thus we learned that "his house was ours," that we were welcome to all he had and that he was sorry he had no more to offer us—a genuine Chesterfield was he. Early in the evening he brought us a light, made of fat and a rag, but it did not last long; fortunately, Mrs. C. had a flashlight, which we used every few minutes throughout the night—for we stayed there all night; I distinctly recall once thinking it must be nearly day, and my watch said but ten-thirty.

Sleep was out of the question in spite of the fact that the sergeant had brought all our extra wraps, rugs and blankets from the truck; we tried huddling together, with our backs to the wall and our feet stretched out in front of us on the sheepskins, but there was quite a drop from the bench to the floor and the wall at our backs was cold, although we stuffed innumerable wraps and blankets between. We were all hungry, for we had had nothing to eat since the disparaged spaghetti at noon but, happily, we were all good-natured and tried to make the night pass more quickly with funny stories and all sorts of contrivances. At one an Indian, who had been helping to extricate the truck—in vain—came into our hut, shut the door and stretched himself out on the pile of skins opposite us; Carmen opened the

HIGH SPOTS IN THE ANDES

door, the Indian arose and shut it; again Carmen opened it and again the Indian got up and shut it; the third time Carmen opened it, then the Indian gave up, wrapped himself in his poncho and went sound asleep, verified by his stentorian breathing. I am quite sure we comfort-loving Gringos, for the first time in our lives, kindly envied the Indian, who has never known any comfort.

At the first break of day we arose from our cramped positions, but the Indian had already preceded us; breakfastless but grateful for the shelter and with renewed hope, for it was not raining, we hurried to the *camion* to discover only Germán and his helper, but we learned that our men, augmented by twenty Indians, whom the sergeant had "rounded up"—and it was fortunate we had the sergeant with us, as the Indians will obey an officer when they might have refused a civilian, the coca and alcohol notwithstanding—that our men had worked continuously from four in the afternoon until one in the morning, when they gave up. Muto and fellow-sufferers returned to Crucero, where the accommodations are not so very much better than what we had, but at least they had shelter and also were able to get something to eat. At seven-thirty Muto, the sergeant and the twenty Indians appeared on the scene; Muto had thoughtfully brought crackers and a little native cheese, buying out the entire stock at Crucero, and these, with a few bananas which Mrs. C. had in reserve, made an acceptable and "with heartfelt thanks" breakfast. Mrs. C. apportioned each Indian a handful of coca and a "swig" of alcohol, much diluted with water, and promised them more when the truck was again on the road, so they worked with a will and in less than an hour the truck was on our side of the river, but it was nine-thirty before all the cargo was again stored in place. (The cargo had been carried out immediately after we women folks had been carried across, deposited on the road and covered with canvas.)

As we started out, Germán facetiously remarked, "Now we'll go all the way to California." (I think I wrote you in a previous letter that California and New York are the only states in the United States as far as Bolivia and Peru are

MISCELLANEOUS "ROUND ROBINS"

concerned.) But we skidded a little more than a league when we mired in the mud; we women got out and walked ahead until the truck overtook us, but this occurred so many times that we did not arrive at Puerto Arturo until noon. Sra. Victoria de Gutierrez, the hospitable owner of this big farm, invited us to stay for *almuerzo*, which we were only too glad to do, and had she but known it we needed no insisting but were rather expecting the invitation.

Immediately after luncheon, Germán went on horseback to Rosario to get more gasoline and to report to us the feasibility or even possibility of crossing the now extremely wide river at Rosario. At three, Germán had not yet returned, and as Rosario is but two kilometers from Puerto Arturo we decided to see the river ourselves, but Muto "chauffeured" only a half kilometer when we came to a bad, muddy stretch and we did not care to risk another miring, so we returned to the haven of Puerto Arturo and were reluctantly persuaded to remain over night, but with the definite understanding that we were to leave at five the following morning—without breakfast, as we wanted to cross the river before the sun "had got in his licks" to make the river still higher; but Sra. Victoria would not consent to our leaving without breakfast and promised that we should have breakfast in plenty of time to get off at five.

I awoke at four-thirty but all was as silent as the grave; at five-thirty Leonora came to my room, so I arose and hastily donned what few clothes I had removed the night before; we went out to the patio, on outside and we saw only Germán's helper tinkering with the truck. Germán had not returned at all but his helper pleaded for just a little more patience and Germán would soon return! Meanwhile Mrs. Christen, Muto, the three girls and I were standing first on one foot, then on the other, freezing, waiting, "looking and listening" for some signs of breakfast, for we had concluded that Muto should drive the truck to Rosario and we would not wait for Germán. At six-thirty the daughter of the house appeared, asking us to have just a little patience, that breakfast would soon be ready. At seven, nothing doing, but at seven-fifteen the doors of the spacious dining room, opening

HIGH SPOTS IN THE ANDES

out on the patio, of course, were thrown wide open and, with all due appreciation of the kindness and hospitality of Sra. Victoria, we were all extremely surprised at what was set before us: with this almost interminable delay, we had looked forward to fried chicken, hot bread and all the accessories—and what did we get? The regulation South American breakfast of cold bread and *café con leche*! To be sure, we were grateful for all that our hostess had done for us, and she was hospitality itself, but oh, that patience-trying wait! It was almost eight before the final "*Feliz viaje*" (Happy journey) was said, but in a few minutes more, we were at the river—and a wild and turbulent river it was; on the opposite shore was the Government mail-carrier with the mail for Maldonado, afraid to risk the crossing to our side, while we were likewise afraid to cross to his side.

Germán gave the plausible excuse for his non-appearance, that he could not re-cross the river, but a bevy of pretty "Cholitas" at Rosario gainsaid that pretext. After much palavering and parleying back and forth across the river, Moya, the mail-carrier, was persuaded to take us and our baggage to Tirapata, while Germán would take the mail and Moya's passengers to Huancarani; but first we had a refreshing "tea" of bread and butter and fried eggs. Horses were loaned us from Puerto Arturo and we tried "doubling up," a woman to ride behind a man on each horse, but the horses balked at the arrangement so each of us women closely followed the horseman in front of her, and we were told to keep our eyes glued to the man in front and not to look down at the racing, muddy water. The current was so swift that we were carried far below the regular landing and we all had difficulty in climbing up the bank, but the crossing was made safely—wet feet and ankles were too trivial matters to fuss about after such a harrowing experience; it was eleven before passengers and baggage were duly transferred and then we were off for Palmera, the river at which place we had been dreading ever since we had left Huancarani; at normal times, it is a wide but shallow river, meandering over much territory, but when swollen, there might be deep pits, into which the truck could blunder with disastrous results.

MISCELLANEOUS "ROUND ROBINS"

Due to many mirings we did not arrive at Palmera until five-thirty, and while the river looked frightfully wide, the waters had subsided considerably since morning, hence a crossing was decided upon; all passengers got out so if the truck mired, we, at least, could spend the night under shelter, as there had been a continuous, cold drizzle and to spend the night in midstream, with a possibility of the river rising, was not an alluring prospect, to say the least. However, the truck with the baggage waded through with no difficulty whatsoever and then with two horses and a mule, obtained from the Palmera farm, we made the crossing much more quickly and infinitely less fearfully than at Rosario, and with not a single wet ankle.

We arrived at Asillo about seven-thirty and it was considered unwise and unsafe to proceed. The Asillo Inn was not so bad; my bed was a cement bench in one corner of the room but there were plenty of covers, and though the "mattress" (a few sheepskins) was a little thin, yet this bed was beyond compare so much better than the one we six women had shared two nights before that I did not even notice there were no sheets! We were promised dinner at once but we had to patiently (?) wait until nine-thirty. We were supposed to leave at six the following morning but at seven we were advised that Moya, the chauffeur, had a cold, was still in bed and that we would not leave until eight. So Muto cavaliered us to the really imposing church, almost grand enough to deserve the name of cathedral; it has thirteen altars, the main one having decorations of pure silver, while the woodcarving of the twelve others is superlatively good; it still contains some splendid paintings but most of the works of art have been looted—it is a wonder there is anything left at all; it is a church well worth visiting.

We were two full hours getting to Tirapata—it is only five leagues and in the dry season it rarely takes more than a half hour, but this time the truck "skated" about four leagues of those five, the road was indescribably rutty and muddy—it was atrocious—and we walked fully a third of the distance. But, with "patience," we finally arrived at Tirapata, the Christens' destination, but which is two laps behind mine,

HIGH SPOTS IN THE ANDES

as I am headed for Mollendo to enjoy a month's sojourn there with the Graybills; but the Graybills and I will spend a few days at Arequipa first.

P. S. Nov. 23, 1932. What became of Germán? Such a cheerful, optimistic youngster and yet the worst "rattle brain" I ever met; that he brought us safely as far as Palmera was really the luckiest hairbreadth escape of the whole trip; he did finally reach Tirapata with the truck still holding together, but shortly afterward, he went to Arequipa, imbibed too much "firewater," shot and killed both his father and mother and then killed himself.

RETURNING TO PERU AFTER SEVEN YEARS IN SOUTH AMERICA

(I really can't see why you so urgently request this letter, there is so little about South America—but here goes:)

Santo Domingo Mine, Oct. 22, 1930.

DEAR FOLKS:

Clarence and I left the States with such a glow of happiness for all the old contacts renewed and for the new ones made; a little saddened by the passing on of those whom we should have liked so much to see again, yet we wholeheartedly agreed that our vacation had been superlatively enjoyable.

The trip on the *S. S. California* from Los Angeles to Panama was delightful and each one of our party of five distinguished himself in one or more of the tournaments: races, swimming, shuffleboard and bridge; the five consisted of Mr. and Mrs. Brooke, mining engineer and wife, of Portland, Ore.; Mr. Rifat, assayer, of Rolla, Missouri, Clarence and I. We regretted leaving the hospitable *S. S. California*, but as we had never stopped on the west side of the Canal, we enjoyed the two days there in sight-seeing: an auto trip to the old ruins, a monument, or rather a scar, to the pirate, Morgan; through old Panama and through new Ancon, where the Government employees live, and we did a little shopping, but mostly we just sat on the verandah of our hotel, for it was too hot to do much else.

We embarked on the *Santa Barbara* late Wednesday night,

MISCELLANEOUS "ROUND ROBINS"

October 1st, and were agreeably surprised to meet old friends from Lima and from Chuquicamata. The boat seemed like a toy compared to the huge *California*, yet the *Santa Barbara* is a staunch craft, one of the best boats plying on the western coast of South America. We soon adapted ourselves to the rolling of the ship and to the daily program of the now "old-timers," for most of the passengers had embarked in New York. Strange as it may seem, it grew colder as we neared the equator, due to the Humboldt Current.

On the 3rd we crossed the equator. Old Neptune, his wife and his band of pirates arrived "with bells on" to initiate those who had never crossed the line; led by the band, old Neptune and his party paraded the decks, rounded up the victims, instilling with terror the hearts of the more timid ones; woe to him, who attempted to escape! The stage was set in the after part of the boat, including a high platform adjoining the swimming pool. The candidates were called separately, accused of some crime, such as endangering the life of his fellow-passengers by consuming more than his rightful share of the ship's food, being too attentive to his own wife or to her own husband (this was usually the crime of the newly-weds), faking a passport, or some other misdemeanor of the high seas; after the accusation had been solemnly delivered, the accused was taken to the doctor, who made a thorough examination, especially of the heart, with a huge bellows, to ascertain if the culprit was physically fit to undergo the ordeal ahead of him. (I never knew of any malefactor to escape by reason of the doctor's pronouncement, but I know of several "femalefactors" who were exempted—one, even before she was taken to the "medico," on account of extreme nervousness.) But if any young man attempted to get off, he was given the whole ritual, with a few little accessories added for good measure. Once the doctor pronounced the victim fit, the doctor's assistant gave him a liberal, very liberal, dose of castor oil, mixed with some evil-smelling liquid, to enhance the flavor; if refractory, the culprit was given an electric shock by the doctor's "electricity expert" (generally a ship's officer, rather than a "bird" of passage) and then doused with cold, ice-cold, water; his face

HIGH SPOTS IN THE ANDES

was then smeared with pumpkin pie and he was conducted to the court barber, who shampooed him generously with none too fresh eggs, lathered him with whitewash and shaved him with a razor two feet long and fully three inches wide; the ritual ends with "baptism" in the swimming pool, and oftentimes the baptismal chair, the two baptizers and the victim go tumbling into the water together. If there has been an unusually large number of initiates, it behooves Mr. Jupiter, Mrs. Jupiter, the doctor, his assistants, the barber and other functionaries to make a quick "get away," else in the "rough housing" that follows the initiators are likely to be man-handled even more roughly than the initiates were.

Following the Neptune demonstration, the swimming pool was taken out and the canvas hung up to dry, for it became too cold for aquatic sports; also most of the deck sports were abandoned, for the weather was now too chilly for anything but brisk promenading.

We arrived at Callao, Lima's harbor, Sunday afternoon, October 5th, but were not allowed to disembark until Monday morning; Peru is still under martial law, hence all passengers had to go through a lot of red tape to land and any traveler returning to the boat was warned to be at the dock before six P.M. Our party went at once to the United States Consulate, where Mr. and Mrs. Brooke were registered, then they, with Mr. Rifat, went to Police Headquarters to get "*carnets*"—a *carnet* is a certificate required of all foreigners (and now of natives as well), giving name, birthplace, age, reason for being in the country, etc.; we think *carnets* should be instituted in our own U. S. A., for they would certainly eliminate many undesirables.

Clarence and I went to the United States Embassy, where we were cordially received by Ambassador Dearing; thence to see our lawyer, who has been trying to secure a concession for Clarence, a large section of territory in southern Peru, to prospect and exploit for gold; Dr. Fernandez, figuratively and almost literally, embraced us with tears of joy, as he was about to cable Clarence to return as soon as possible; with him, we went to the Minister of Mines, the only member of the Leguia Cabinet who survived (his office) the Revolution,

MISCELLANEOUS "ROUND ROBINS"

and while visiting here, there came a telephone call that the President would receive us. So the three of us hurried to the President's Palace and were ushered into an elegantly, richly furnished room, into which almost immediately entered a dapper, well-groomed, short, very dark-complexioned forty-two-year-old, but younger-looking, alert soldier, dressed in a Lieutenant Colonel's uniform; I was introduced to His Excellency, Sanchez Cerro, President of Peru, who kissed my hand in true Spanish fashion. The three men, with courteous apologies to me, began at once to discuss the concession to which I was a most interested listener and in a little more than a half hour the interview ended, and the President again kissed my hand. So now I have talked with two Presidents—you remember I wrote you about sitting at the right of President Saavedra of Bolivia at a memorable banquet.

As it was six o'clock while we were still in conference with the President, and Callao is seven miles from Lima, the military "Comandante" gave us a written permit to leave the dock and he stated in the permit that we had been detained by President Sanchez Cerro. Arriving at the dock, the officials said we were too late and *under no circumstances* could we leave the dock; then Clarence presented the permit and what a "Presto Chango"! Every available facility was put at our disposal, so we boarded the *Santa Barbara* in time to dine, and much to the relief of our friends, particularly a relief to the three members of our little party, who, knowing no Spanish and with but little cash, were wondering what would become of them; however, when we explained the cause of our tardiness, we received congratulations and had a round of cocktails (Bryan) to celebrate.

The sea was not unusually rough at Mollendo, hence our landing was not especially exciting, although all the "tender-feet" got quite a kick out of being hoisted in the chair and Clarence obligingly took movies of the proceeding. The *aduana* (customs) did not delay us much and we left the same afternoon for Arequipa through miles and miles of pampas, reddish brown, hot and rainless. The sand dunes, constantly shifting but always retaining a perfect crescent shape, are of never-failing interest; they often measure one

HIGH SPOTS IN THE ANDES

hundred feet from tip to tip and some of them gain a height of six feet or more; they consist of fine grains of sand, moving grain by grain, the trade wind driving the whole dune imperceptibly but relentlessly on, ever with the tips ahead. What seemed like foothills became the giant Andes and one of their majestic peaks, El Misti, the Fujiyama of Peru, the pride of Arequipa, with two other snow-capped peaks, stood out clearly, but before we arrived at Arequipa, the sun had sunk behind the mountains and soon the peaks and everything were obscured.

We spent two quiet, restful days at Quinta Bates, the haven of all Gringos, "showing off," of course, the Plaza de Armas, which we consider the most beautiful, the most artistic plaza which we have seen, in all South America. Friday night we left for Juliaca (night trains have been since taken off due to lack of patronage) and it is a toss up which is worse, the night ride from Arequipa to Juliaca, ascending from 8000 feet to 15,800, down again to 13,000, with its consequent many curves and jolts, the latter sometimes so severe that you frantically clutch to anything within reach to keep from being hurled out of your berth, or to spend the night at Juliaca in a cold, cheerless hotel; but if you have any friends in Juliaca, who will take you in, by all means avoid the night ride.

We stayed in Tirapata only long enough to repack our baggage for mule transportation and to take inventory of the Company's properties, for we had now ceased to be *optionistas*; our trip home served the double purpose of visiting all our relatives, a large number of our friends, and the taking over the Santo Domingo mine, the latter an extremely happy consummation of our two years' option.

We found the mine in good shape, not at all affected by the Revolution; everybody here well and happy, happy to see us again and we, in spite of the wonderful time we had so thoroughly enjoyed in the States, we, Clarence and I, were happy to be in our own home again.

MISCELLANEOUS "ROUND ROBINS"

LOSING A GOLD BRICK

New York, Jan. or Feb., 1931.

DEAR "BUNCH":

I am constructing this letter from memory, for unfortunately I have lost the copy of the letter telling about a hectic trip out, but I know we left the mine, that is, Miss Krause, Mrs. Brooke and I did, on December 23rd; there was a general clean-up of the mill on that day and on the following day, December 24th, the gold was smelted and refined; due to the large amount of amalgam to be distilled and smelted, the two bars of gold were not ready for transportation until after eleven that night, Christmas Eve. Clarence, accompanied by Mr. Brooke, left Santo Domingo about midnight, using carbide lamps to light the way; they expected to overtake us three women on the way from Oconeque to Huancarani. The two men rode all night—just imagine going over Bandarani at night!—had breakfast at Oconeque, changed mules, and, without resting, continued the journey to Huancarani, where they arrived at five in the afternoon, three hours after we had dismounted there. Without a moment's rest or a bite to eat, the two of them and we three climbed into the truck bound for Tirapata.

Clarence and I were in the cab with the *chofer* (Spanish spelling), the two gold bricks resting at our feet. Dead tired, sitting between the *chofer* and me, Clarence fell asleep. Shortly after as we were descending from the summit, about a half hour from the summit, Clarence awoke with a start, felt with his feet for the gold bricks and discovered that one was missing! How that bar ever slipped out of the truck, with my two feet firmly planted alongside of the door, will ever remain a mystery; as if touched by an electric current, each and every occupant of the car was at once awake. The *chofer* turned the car around, Mr. Brooke, with a flashlight, stood on one running board and Clarence on the other and thus we slowly, oh so slowly, retraced our road; a few kilometers from whence we had returned, there lay the box with a thousand ounces of gold inside, worth \$20,000, a wonderful find for a passer-by but would have been a serious loss to us.

HIGH SPOTS IN THE ANDES

Too thoroughly awake now to care for sleep, we rode on for several hours but finally succumbing to weariness, most of us were nodding drowsily, a few sound asleep, when the car stopped with a sudden lurch and we were all wide awake again—we were out of gasoline!

It was now midnight; the houses along this road are very few and extremely far between and what few Mr. Brooke and the *chofer's* helper were able to find had no occupants; it was Christmas Day and everybody had left home to celebrate. There was nothing else to do but try to get a wink or two of sleep until daylight, which always brings hope and our hope this time was *gasoline!* Fortunately the weather was not cold—December is our warmest month—but none of us were too warm by any flight of imagination. We were buoyed up with the sanguine expectation, that not arriving at Tirapata on scheduled time, Cuadros would start out to meet us.

Vain expectation! We waited until ten o'clock—not a single car, not a soul appeared! Remember we had had nothing to eat since leaving Huancarani either, and a menu of soup and spaghetti is not a bountiful Christmas dinner. At ten, Mr. Brooke started out to walk to Asillo for help (gasoline) and in a half hour he met two cars, both Fords; the rest of us, our "Merry Christmas" party, were idly watching the road, when to our utter amazement and horror that first Ford, without any apparent rhyme or reason, turned a complete somersault, cleared the highway and then lay upside down in the gutter; Clarence, followed by the others, hurried to the scene of disaster—I tried to persuade Mrs. Brooke to remain with me, for I, like everybody else, thought Mr. Brooke was in that car, but she was not to be persuaded. Most happily, except for minor cuts and bruises, not one of the four occupants was injured, and Mr. Brooke was not in the car; he came in the second one and from whose *chofer* we were able to borrow enough gas to take us to Asillo, where we could get all we needed.

We arrived at Tirapata just an hour and a half before train time—just an hour and a half to clean up, and, for Clarence and me, to pack trunks and suitcases for an indefi-

MISCELLANEOUS "ROUND ROBINS"

nite stay in New York, whither we were bound; however, we made the train and eventually our boat, but at Juliaca we had another adventure: The Graybills met us with their car, Clarence and I with the two gold bricks, to go to the Clinica while the rest of the party put up at the Gran Hotel. (Every city and hamlet in South America has its Grand Hotel.) At Tirapata, the two gold bricks had been transferred to two suitcases and Clarence asked me to keep one of those suitcases in sight, while he looked after the other. There is always a tremendous crowd at the station in Juliaca and in spite of all our efforts to keep all our luggage for the Graybill car, a runner for the Gran Hotel took possession of one of the suitcases containing the ingot, and it was the one entrusted to my care, so I promptly followed him and not until we arrived at the hotel, was I able to convince him that we were not putting up at the hotel but at the Clinica. It is but three short blocks from the hotel to the Clinica, but do you think I could persuade that *chico* to take the suitcase to the Clinica? With my hand full of coins and my purse at hand, he refused to carry that heavy suitcase a step farther—said he must fetch and carry for the hotel only. So with my foot on the suitcase I hailed another *chico*, who valiantly tried to tote the heavy load, but he gave out at the beginning of the second block; happily a man came along who obligingly carried it the rest of the way. In the meantime Clarence and the Graybills were frantic about my disappearance; Dr. Graybill hurried to the hotel but I was not there, nor could he get any information of my whereabouts. Returning to the station, where Clarence and Mrs. Graybill were anxiously awaiting his return, the three decided to drive quickly to the Clinica, then with the one ingot safely stored away, to continue their search for me and the other ingot. It was a great relief to all four of us to thus meet at the Clinica, for I, too, was anxious about their delay in arriving.

Miss Krause had said that we would have no luck, starting out on a trip at Christmas time, and it began to look as if her prophecy would be fulfilled, but Clarence and I arrived in New York without any other untoward incident.

HIGH SPOTS IN THE ANDES

"BOOTLEGGING" AND REVOLUTION

Santo Domingo Mine, July 8, 1931.

DEAR FOLKS:

Mrs. Stacpoole, our Mine Superintendent's wife, and I left Santo Domingo June 20th, destined for Arequipa, both of us to see a dentist and I to meet the Stretters of California. My dental work was presumably of short duration, so I planned to leave with the Stretters by the next train. We had had a "clean-up" of the mill the previous Friday, the gold retorted, smelted and poured into bars Saturday, but we women folk left Saturday morning, with an Indian to take care of our mules, in order to stay all night at Sagrario, thus making an easy journey to Oconeque the following day and where Mr. Brooke, who takes out the gold and brings back the payroll, would overtake us. Mrs. Stacpoole and I arrived at Oconeque at three in the afternoon, after a leisurely and very comfortable trip. Mr. Brooke, accompanied by Mr. Arnold, salesman for the Ingersoll-Rand Machinery Co., who had been the mine guest for a week, arrived at Oconeque after six, already dark.

We left Oconeque at six A.M., arriving at Limbani at ten, a record; here we had tea and sandwiches and fed the mules, realizing that "a little rest and refreshment are good for man and beast" and thus fortifying both man and beast for the steady climb ahead. At Huancarani the hot soup and spaghetti, also the truck, were awaiting us and we pushed on to Tirapata, arriving at nine-fifteen P.M., thoroughly chilled, nor did we become really warm until the sun's benignant rays on the morrow penetrated to our "bones and marrow." No wonder the Incas were sun worshipers! At four-thirty we boarded the train for Juliaca, where we spent the night at the Gran Hotel Ratti (the latter pronounced with either a flat or broad "a" and the hotel is concisely described). Immediately after dinner Mrs. S. and I called on Dr. Reed and his wife, in charge of the Clinica Americana, where we spent a very agreeable evening, enjoying the grateful warmth of the open fireplace, and on leaving were most cordially invited to "make the Clinica our home" whenever we passed

MISCELLANEOUS "ROUND ROBINS"

through Juliaca. And little did they or I realize how soon and how glad we were to avail ourselves of this invitation. Our train left at eight-forty Wednesday morning and at five-thirty in the afternoon we were at Arequipa: 40 miles by mule, 100 miles by auto, part of a day and another whole day by train (225 miles) in order to get one tooth filled!

The Stretters and Mrs. Brooke met us at the station; Mrs. Brooke had been vacationing at Cuzco and its environs and was now at Arequipa to await her husband. The station had its usual throng of barefooted Indians, picturesque Cholos, insistent vendors, tenacious beggars, mixed with *gente* who just came "to see the mail come in"; but we did not tarry here, as Mr. Stretter told us Arequipa was suffering from an epidemic of smallpox. (Tia Bates later told me that Arequipa was almost never without smallpox, but because two Gringos had contracted the malady, it became an epidemic.) Mr. Brooke, of course, gave his whole attention to the transporting of the gold—the same "cabby" and the same *chicos* (our "red caps" but not in uniform and not so reliable) met him and speedily, without flourish, conducted him and all his baggage to the waiting car and thence to Quinta Bates. So far, so good. We had a "family table" at the Quinta—I had brought some *perdices* (almost identical with our partridge), which I had purchased from the conductor on the train, who always bought all the *perdices* he could get from the Indians at the "high" stations along the way and then resold them to the Gringos. So we ate *perdices*, along with other good things, and gossiped until very late, for dinner is rarely served before nine and often later.

At eleven that night the Brookes were disturbed by a loud hammering on their door and two men were admitted, who said they had been sent by the Prefecto, the Head of the Department of Puno, the Department in which Santo Domingo is situated, and that the Prefecto had passed the order along to the Prefecto of Arequipa to search the baggage of Señora Woods and of Señor Brooke for contraband gold! Mr. Brooke and I accused of bootlegging gold out of the country! The Brookes permitted their personal baggage to be searched but the gold was hidden and Mr. Brooke had

HIGH SPOTS IN THE ANDES

his automatic ready to defend it. As a side light on the morals of the country, the Brookes found it difficult to make the intruders understand that the woman in the room was really Mrs. Brooke, and evidently, they were not so convinced, for I was not awakened nor did I hear of the thrilling occurrence until six in the morning, when Mr. Brooke came to the room that Mrs. Stacpoole and I were occupying and related the details, concluding by saying that he and Mrs. Brooke would try to make a "get away" by auto to Mollendo.

I was too astonished and surprised to think clearly but at once after Mr. Brooke had gone, I felt that any attempt to get away would only end in disaster and at the same time strengthen the suspicion that we were really trying to dispose of contraband gold; so hastily donning slippers and Mrs. Stacpoole's fur coat (she is taller than I, so her coat covered more of me than mine could have done), I hurried to overtake Mr. Brooke and found him already in deep parley with the same two visitors of the night before—they were taking no chances that Mr. Brooke might leave on the morning's train for Mollendo. I was introduced as Sra. Woods and then they, for the first time, believed the other woman was Mrs. Brooke! What a scandal may have been averted! After much discussion, they extracted a promise from both of us that we would not attempt to leave Arequipa until the affair was settled. Then Mr. Stretter was awakened and he and Mr. Brooke decided to lay the matter before Grace & Co., who have done all our transporting of gold from Mollendo to the United States since we came to Peru. We women, in the meantime, were "watch dogs" over the gold. The manager of Grace & Co. called his lawyer and an interview was arranged with the Prefecto, who, when he understood that our gold had always been transported in exactly this same way, became quite profuse in his apologies, assured us it was all a mistake and reassured us that it would never happen again. The Brookes, of course, missed the train and left that afternoon by auto for Mollendo in order to meet the Grace boat bound for the United States.

The Brookes were to wire me of their safe arrival and that "all was well," for it was understood that I was to bring back

MISCELLANEOUS "ROUND ROBINS"

S./10,000 (\$4000) for the next pay day, as Mr. Brooke would be detained by dental work in Arequipa for several days. The banks in Arequipa close at three and at a quarter of three I had received no word from Mollendo! Mr. Stretter and I went to the bank anyway, assuming that all was well and, luckily, it was so, for my check was honored without delay.

By meeting appointments with the dentist in all his spare time, twice after nine at night, my work was finished—another tooth needed filling—so the Stretters and I left Arequipa Saturday morning. Mr. Stretter had brought an aneroid from the States and we found it very interesting to check up on the altitudes as given at the different stations—and they checked up remarkably close; we go over a summit of nearly 15,000 feet from Arequipa at 7650 to Juliaca at 12,800. Dr. Reed was at the station and we were comfortably domiciled at the Clinica that night. The train for Tirapata is scheduled to leave at eight forty-five but usually doesn't get started until after nine, so we were unhurriedly enjoying a real American breakfast this Sunday morning, when Sr. Bellido, the accountant at the Clinica, rushed into the dining room, after a mere preliminary knocking, and fairly shouted, "There's a revolution on, all trains are stopped, the Plaza is full of soldiers!"

We looked at each other in blank amazement—a revolution! And then the men hurried out to the plaza, only three short blocks away and, returning in a few minutes, they confirmed our worst fears. What to do? The Stretters had an enormous amount of baggage checked from Arequipa, but some of it they would need at the mine; I had the payroll with me, but had checked one suitcase. We decided to hire a truck, gather up our baggage, and drive to Tirapata.

The doctor and Mr. Stretter went to the station to see about the baggage, while Mrs. Reed, Mrs. Stretter and I, in feverish excitement, began gathering our few belongings to be ready for a speedy flight. The men returned with the news that the regiment of soldiers from Puno, in taking over the train the night before, refused to allow any baggage to be removed at Juliaca, hence all our checked luggage was in Puno! There is always such a mob at Juliaca when any

HIGH SPOTS IN THE ANDES

train comes in, that even though we had seen soldiers, it would not have occurred to me that anything untoward was brewing, but I do not recall seeing a single soldier. It was Sunday and a religious fiesta besides, St. Paul's Day, so it would have been impossible to get a *chofer* to drive a truck and impossible to do any business at Puno but the doctor did succeed in persuading a truckman to start at seven the following morning, Monday, with Mr. Stretter for Puno to get the baggage. Later, Mr. Stretter and I went to the station through a cordon of armed soldiers, almost filling the plaza, and received permission from an officer to go upstairs to the telegraph office to try to get a message through to Tirapata; the officer gave us no encouragement that a message would be even accepted but the telegrapher did take the message, but it had to be in Spanish and was first censored by a Captain. The array of machine guns, the bristling guns stacked at short intervals along the track, the swarm of officers and soldiers pacing up and down the platform and overflowing on the tracks were disquieting, to say the least, and I, particularly, was so grateful that we were being taken care of at the Clinica, for I knew the Hotel Ratti could offer but little protection, if there should be a barrage of shooting directed that way. The Clinica, just being a hospital, made it safer, but flying the American flag along with the Peruvian, not only made us feel safer, but we were safer. How comforting those stars and stripes were to us, only a "stranger in a strange land" can fully appreciate.

On our way back to the Clinica we met an official of the railway, who told us a special troop train was scheduled to arrive in a half hour and it would leave almost at once for Cuzco. Here was a chance to get to Tirapata, so we returned to the station and I asked the "Comandante" if he would please, please allow three Gringos to ride on that troop train as far as Tirapata; he politely but most emphatically said, "No, señora," and went on to say that there might be shooting anywhere along the line and when I ventured to suggest that we would not mind sitting or even lying on the floor, he replied that we were very *valiente* (brave), but under no circumstances would he permit us nor any civilian to board

MISCELLANEOUS "ROUND ROBINS"

that train. He courteously added that we would not be molested while in Juliaca nor in leaving by any other means.

The truckman, who had been engaged to come at seven sharp Monday morning, actually did come at seven, but without gasoline, without oil and all four tires needed pumping up! It was considerably after eight before they got started; Mr. Stretter spoke almost no Spanish, so we gave him a letter of introduction to Mr. Baker, a missionary in Puno, and through their combined efforts, the baggage was eventually given over to their keeping: how they trailed the baggageman ten or twelve miles around Lake Titicaca, how they prevailed upon him to return to Puno with them, the fiesta notwithstanding—all this would make a good story in itself; he was the only man who had a key to the baggage room and when Mr. Baker asked him what would happen if the baggage room caught fire during his absence, he replied that if the door wasn't chopped down, the building with all its baggage would just have to burn!

We expected Mr. Stretter back in Juliaca about noon and when he had not yet arrived at four, Mrs. Stretter and I made our way through the soldier-crowded plaza to the telegraph office to send a message to Mr. Baker, but he never received it. While returning to the Clinica we met Mr. Christen, our agent at Tirapata; he had gone to Puno on business the Saturday previous and had been caught in the Revolution; he hired a car in Puno and expected to take the Stretters and me with him to Tirapata but both his car and *chofer* were commandeered in Juliaca by army officers. At five I received a telegram from Cuadros, our transportation agent, advising he would be in Juliaca about eleven the following morning. He came in the Buick car as he feared the truck would be commandeered. Mr. Stretter did not arrive from Puno until after six, so we decided to wait until next morning. At eight Tuesday morning, the truck still filled with the baggage from Puno and the Buick filled with the Stretters, Mr. Christen, Cuadros and myself, set out for Tirapata; the streets everywhere were filled with soldiers and we were a little dubious about getting away, but, fortunately, neither truck nor car were even stopped.

HIGH SPOTS IN THE ANDES

It is about a three hours' ride to Tirapata but we had planned to stay there all night, not leaving until noon the ensuing day, thus giving the Stretters ample time to repack their belongings, but we had scarcely removed our wraps, when Mrs. Christen entered the room, almost out of breath, and excitedly told us that all cars and trucks were being confiscated in Ayaviri, the next station above Tirapata, and that a troop train was expected to arrive from there shortly; she advised us to hurry the packing and to leave Tirapata as soon as we possibly could—and we were not slow in acting upon this advice. The Christens in the meantime hid their car, first removing two wheels, and were busy hiding their valuables. The Stretters, with the help of three or four servants, packed fast and furiously; two troop trains passed through and we all figuratively held our breath until they were out of sight; and in three hours, we were ready to go.

At six we were in Triunfo, where we felt secure, with no soldiers in sight, and here the Stretters had their first taste (and smell) of primitive wayside inns. All three of us had to sleep in one room, which had but one small window, and Cuadros slept in an adjoining room without any window and with but a calico curtain separating the two rooms; the beds have no springs and the mattresses are not Simmons' and you are lucky if you draw two clean sheets; there are always plenty of covers, mountains of blankets, which have lots of weight but no warmth. However, we were too relieved from past excitements to be "picayunish" here and we all managed to sleep a little. We left at seven the next morning and arrived at Huancarani at eleven; the Aricoma summit measured 15,750 feet, Huancarani 13,625. We were somewhat late in getting away from Huancarani, hence did not arrive in Oconeque until seven-fifteen, darkness overtaking us at six; I was terrified, for aside from knowing that a good part of the trail near Oconeque is terrifying enough in the daytime, I also felt responsible for the safety of our guests. An Indian from Oconeque met us with a lantern at six-fifteen, as I knew one would, but when he tried to light the lantern, he discovered there was no oil—now, what about the foolish virgins? And we had but one match, as there were no smok-

MISCELLANEOUS "ROUND ROBINS"

ers in our party. (Our flashlights were in Huancarani with *unnneeded* things!)

Fortunately the Indian who accompanied us from Huancarani had a small piece of candle and, "take it from me," we guarded that tiny piece of candle as if it were the last hope of our lives. We led our mules until we were out of the canyon and then I was too exhausted to walk a step further; a short distance out of the canyon is an Indian hut, where Mr. Stretter was able to get a tin can with a candle inside, which made a very satisfactory lantern. I mounted my mule and an Indian led it, while Mr. Stretter led the one with his wife. Mrs. Stretter had the thrilling experience of crossing her first suspension bridge by candlelight.

We came down leisurely from Oconeque Thursday morning, arriving at Bella Pampa about three in the afternoon; Clarence met us here and we all stayed overnight as it would have been dark before we could reach Santo Domingo, had we attempted to go on. At ten the following morning, we were in Santo Domingo. The Stretters have overworked their adjectives and superlatives, "wonderful, marvelous, grandest, most gorgeous," etc., in their exclamations over the scenic beauty and the grandeur and the thrills of the Santo Domingo Trail. And I—I was mighty glad to be home again after two of the most hectic weeks of my life—and I delivered the S/10,000 intact.

THE BIG STORM

Santo Domingo Mine, Dec. 7, 1932.

DEAR FOLKS:

Just three weeks ago today, about two in the morning, we were awakened by a frightful peal of thunder, which shook the whole house; then, continuing at least three hours, the deafening claps of thunder and the almost constant flashes of lightning were terrifying; these, with a never-ceasing downpour of rain, made it seem like a cataclysm. At seven the rain held up for a few minutes and our rain-gage showed five and one half inches of rain; five and one half inches of rain in five hours! The electric plant was put out of commission, the water pipes burst and parts of pipe were car-

HIGH SPOTS IN THE ANDES

ried away by the flood, but it was not until twenty-four hours later that the full extent of the storm's disastrous consequences became known. We are still undecided whether the great number of *derrumbes* (landslides) was due to an earthquake—almost everyone in camp felt, or swears he felt, a distinct shaking—or was due to the storm alone.

There were fifteen *derrumbes*, two very serious ones, between the mine and the Tunquipata bridge; eighteen *derrumbes*, three calamitous ones, between the Tunquipata bridge and Oroya, while the ace of all was on the Bella Pampa side of the Oroya bridge; this "worst of all" one was described as if a huge charge of dynamite had been placed on top of the ridge and the resultant explosion had brought down tons and tons and more tons of rocks, trees, etc. This mountain of *débris* snapped one of the cables, one of the suspension cables of the Oroya bridge, as if it had been a thread, thus throwing the weight of the bridge to one side, causing another cable to break; Flores, the trail rider, who luckily was in Bella Pampa, came to Oroya at daylight, clambered up on the disabled bridge and began dismantling it of the heavy plank flooring, thus minimizing its resistance to the ever-rising flood. "They say" that the mad, rushing torrent came within six inches of the cables on which Flores was standing, while desperately ripping off the boards—Horatius at the bridge had nothing on our Flores for supreme heroism. Fortunately, the main cables withstood the impact, else the time for repairing would have been three times as long. Flores, with his crew working overtime, was two full weeks making repairs on the bridge before a mule could pass over it. Mr. Othick was the first to cross it while it was still a string of cables; Clarence crossed it thus, hand over hand, several times; I shudder still to think of, to see mentally, men crossing on a few loosely slung cables over the Inambari River, even under normal conditions, but now it was deep, muddy, swirling water on a rampage, but a few feet below the daring cable hangers, for there was no footing. Many people consider it a feat to cross this bridge under the most favorable circumstances, with good, solid flooring.

Very early on the same morning of the storm, Mr. Othick

MISCELLANEOUS "ROUND ROBINS"

left camp, first for Tunquipata, then to Oroya; it took him until five in the afternoon to get to Oroya—usually one can walk to Oroya in two hours and it has been done in an hour and a quarter. Sometimes Mr. Othick had to climb two hundred feet up to a ridge and then, often on all fours, clamber or slide down again to the trail; once he climbed down to a ledge about twenty feet above the trail and he could neither get down nor return, so the accompanying Indians threw a rope to him and he "shinned" down. It is an unwritten law that no one attempts to go over these trails alone after a violent storm. Many times Mr. Othick was in water and muck up to his waist and the footing at such times was never secure. He sent word back to Clarence, a note by an Indian, the following day, that it would take at least fifty men a full week to clear out the d— rubbish.

The house at Tunquipata was swept into the raging, towering Tunquipata Creek, normally as placid and gentle as a murmuring brook; the two men and a little boy occupying the house had, fortunately, hastily left the house a few minutes before the deluge, and they were frightened nearly out of their skins. The plant itself seemed endangered but there is still a meter to spare between the "rock upon which it was built" and the river. The two bridges at Tunquipata were completely demolished.

Fortunately, the water pipes were repaired within a few hours but we were twelve whole days and twelve long nights without light, except candles, and we had to conserve candles for we were short of them and of course did not know how long we would have to depend on them for light; twelve days and twelve nights without heat, as our homes are heated by electric stoves, not so much for the heat as for drying, as the excessive moisture causes everything to become damp and moldy in a very short time; twelve days without telephone service, and with but one mail in these twelve days, we were cut off completely from outside communication. Luckily our *recua* (mule train) was in the day before the storm with supplies of flour, rice, sugar, fresh vegetables, etc., hence we were in no danger of a famine, and luckily, too, the *recua* had returned to Bella Pampa, where the storm did no

HIGH SPOTS IN THE ANDES

damage, so the mules were able to go on to Oconeque, where there is much better feed for them than at the mine or even at Bella Pampa. There was a *comerciante* (merchant or peddler), with five or six mules laden with salt bound for Maldonado, held up on a ridge halfway between two very bad landslides this side of Tunkuipata; the second day, he unloaded his mules, covered the cargo with canvas, and by dint of hard work, succeeded in bringing his mules back to Oroya, where he waited until the trail was passable—I think he had to wait ten days. A train of llamas came over the trail first and as we heard them coming we Gringas rushed out of our houses to give them three cheers.

It rained almost incessantly Wednesday following the storm but we were so thankful that there had been no fatalities; Thursday it continued to rain but not so hard; fifty men were sent out in small groups to clear out the landslides. About ten in the morning I was typing letters, when suddenly I heard the terrifying, stupendous, crashing noise that portended another landslide. I felt sure the whole mill had toppled over into Santo Domingo Creek, but by the time I had reached a vantage point in my back yard, all I could see was the long, huge, bare streak denuded of trees, as if a gigantic razor had cut it clean. There were four men working at this place—it was considered the safest spot to work of all the bad landslides on the trail—and as the trees above started to sway, a group of women, who were watching the men shovel the *débris* away, screamed and one of the group had presence of mind enough to motion to the four men, indicating the moving earth above. Two of the men ran toward Santo Domingo, the other two in the opposite direction, but unhappily the rear one of the latter two, with a long poncho on, stumbled, and before he could right himself was hurled with the oncoming avalanche fifty feet into Santo Domingo Creek below. His body is buried under tons and tons of huge boulders and *débris*—its recovery is impossible. This tragic occurrence, naturally, affected the whole camp and for several dark, dreary, rainy days the men worked on the trail but half-heartedly. Clarence came up over that fatal place but ten minutes previous to the disaster

MISCELLANEOUS "ROUND ROBINS"

and he had just reached the office when the terrible, clattering roar of the landslide caused him to hurry back—the doctor running ahead of him—but there was nothing to be done. This is our second fatal accident in our four and a half years in Santo Domingo.

If only the sun would shine to dispel some of the gloom! But it continued to rain heavily for three more long days. Looking out of my window to the south, I could see six beautiful waterfalls; the fourth day, I could see but one, "Cascada Blanquita," named for Blanche Stretter because she admired it so much when she was here last year; the first three of the six, including "Blanquita," were especially beautiful, for the Wednesday's storm mowed the surrounding trees down for at least twenty feet on both sides of the waterfalls as "slick as a whistle," affording an unobstructed view of the cascading water, tumbling, I should guess, eight hundred feet from close to the top of the ridge, in white, feathery spray to become part of the foaming, tumultuous Santo Domingo Creek rushing madly headlong, as if it, too, was bent on destroying everything in its path.

When Clarence returned from his first inspection trip all the way down to Oroya—Saturday, I think—and it took him the whole day, he said all the gulches, and there must be at least twenty of them, each and every one, was swept as clean as a hound's tooth; some of these larger gulches had accumulations of immense boulders and *débris* with small forests of trees growing among the boulders, accumulations of many, many years; all this rubbish was swept into Santo Domingo Creek or heaped up on the trail, leaving the bed rock of the gulches exposed. One narrow canyon, a short distance below the Tunkuipata bridge, was filled with water—its stream had risen sixty feet! He said many places along the trail looked as if dynamite had been tamped into the rock high above, then detonated, leaving a wide swath, cleaner than a miner could have done, hurtling tons and tons of boulders, trees and earth into Santo Domingo Creek or piling it up on the trail. This storm left the most serious damage and greatest havoc in its wake of any catastrophe since the trail was built. Mr. Tuss, who is mining at Alta Gracia, close to Santo Do-

HIGH SPOTS IN THE ANDES

mingo, returned from "outside" ten days after the storm, accompanied by Lee, who was returning from the States. The two had to cross the 350 feet of cables (the Oroya bridge without flooring) and Mr. Tuss said the trail from Oroya to Santo Domingo looked as if nothing of the original was left, as if the entire trail had been rebuilt.

The storm seems to have struck the Santo Domingo ridge and the one directly north of us, confining itself to a large area eastward in the Amazon Basin, for no damage was inflicted west of Bella Pampa—the telephone line from Bella Pampa to Huancarani remained intact; but the big bridge at Huacamayo, three days "inside" on mule from Santo Domingo, was swept into the Huacamayo River. Many landslides on the trail to Maldonado have been reported.

I will add Mr. Maycumber's weather report for November:

Total rainfall 37.75 inches.

Average temperature 64°.

Sunny days: 6.

On the morning of Nov. 16 at two A.M. an earthquake followed by a cloudburst.

Five and one half inches of rain in five hours.

Road out in thirty-three places between Santo Domingo and Oroya.

Bridge at Oroya badly damaged.

Two bridges out at Tunquipata.

Tunquipata power plant in great danger.

Rebuilt four miles of telephone line, putting in one mile of new wire.

Power off for twelve days.

One man killed.

We suffered a complete shut-down in mine and mill for two weeks; all the men from the mine, the mill and the shops were put on the road to repair the trail, the transmission lines, etc. With the exception of the two days following the fatal accident, everybody worked with a will and the morale of the camp was excellent. If this disastrous storm had occurred during our first year here, we would have had to walk out with our blankets on our backs, so we are thankful that we have been able to withstand the calamity.

CHAPTER XIII

THE STORY OF THE SANTO DOMINGO MINE

Santo Domingo, January 15, 1933.

MY VERY DEAR IVA:

I am glad you considered the "hodge-podge" of round robins interesting and I confess the "rehashing" was just a little interesting to me as well, for I enjoyed some of the thrills in retrospect, while the mere copying brought back memories, the pleasant ones heightened, the others mellowed by time. You say the storm was "awful" and it was, but, my dear, that travail of the very foundation of the earth (so it seemed to us) gave us a dear little girl, who has brought and is continuing to bring much joy into our home: her father was the unfortunate victim of the cruel landslide and we at once took the motherless, eight-year-old waif into our hearts as well as our home; she calls Clarence "daddy" and her "mammie" means more to me than all the degrees or titles I have ever had conferred upon me; she more than compensates for any fear, worry or loss we have suffered and we both regard her as South America's most precious gift to us.

You want me to tell you the story of the Santo Domingo Mine—your request is timely, for I have just received some notes on the mine by Mr. Paul Yungling, who was the first American engineer at this mine. (Clarence always wanted me to collect data on the Pulacayo mine, for if ever a mine has had a hectic history, Pulacayo is certainly the one to carry off the prize; but I procrastinated too long and lost a golden opportunity to give my friends an absorbingly interesting story.) This time I shall not put it off but am beginning the very next day after the receipt of your letter.

Early in June we were most agreeably surprised by a wholly unexpected and quite unheralded visit from two men directly from Los Angeles; I say unheralded, for we usually

HIGH SPOTS IN THE ANDES

know from Huancarani, at least, when anyone is coming to Santo Domingo, but these two men, Mr. Yungling and Mr. Jones, had stopped at Sagrario several days and I presume had not mentioned at Huancarani that they were later coming to Santo Domingo. Mr. Yungling was a member of the group of Americans that came to Peru in 1894 to take over the Santo Domingo mine; he was assayer, surveyor, doctor and general-utility lad, for he was only nineteen. He has a flair for languages and was soon able to speak the Quechua with the Indians, the Spanish with the Cholos and *gente decente*, and being a "medicine man" as well (he had studied medicine for two years and has the successful amputation of a man's leg and several other surgical feats down here to his credit), the Indians soon had confidence in him and before long, an Indian showed him some gold—gold that duplicated the Santo Domingo gold—and told him in a general way where this gold had been discovered. So Mr. Yungling spent his vacations scouting around, looking for this mine, but his vacations were never long enough to give him the time necessary to find the outcropping from which this "float" came.

At the expiration of his contract, three years, Mr. Yungling returned to the States; his mother was not very well and she exacted a promise from him that he would not return to Peru during her lifetime. But now, after thirty-seven years, he is here again; his mother, still living and more robust at eighty-four than she was at that time, has released him from that promise. She feared the "Chuncos" (savage Indians), who were but a few kilometers from Santo Domingo; the extreme roughness of the country and the unknown dangers of the unexplored wilderness frightened her. In the meantime Mr. Yungling has been in nearly all parts of the globe but the dream of finding this "El Dorado" in Peru has ever been with him.

Mr. Jones, a younger man, but not one whit more vigorous, whose more than six feet of brawn and muscle and "the cut of whose jib" shows that he usually gets what he goes after, has been fired with the same enthusiasm and now the two men are actually on the trail of this mine in the Inambari

THE STORY OF THE SANTO DOMINGO MINE

Gold Concession. It is scarcely necessary to say that the entire staff at Santo Domingo devoutly hopes for their success in even greater measure than they themselves are hoping to obtain.

Mr. Yungling held us spellbound with his graphic descriptions of the adventures and experiences of this first American expedition into this trackless *montaña* (Green Hell) nor did we want to interrupt him, but later in the evening I asked him for some notes of the "high spots"—and these are the notes just received. While waiting for these notes, I interviewed, just talked, with as many "old-timers" as I could—and one of these "old-timers" was here when Mr. Yungling first arrived and still remembered him! I have gathered quite a little more information in this way of the "romantic history of the Santo Domingo mine" and shall now pass on to you what, to us, is an absorbingly interesting story and if you find it one-tenth as interesting, I shall feel that my efforts at transcribing these data are well repaid.

In 1890 one Mariano Quispe, an Indian from the village of Macusani, sixty miles from Santo Domingo, was with a party collecting bark of the cinchona tree, our source of quinine. Quispe made his way alone up Santo Domingo Creek, turned into a small creek joining the Santo Domingo Creek on the left and stopped to survey a small waterfall that blocked his way; deciding that he could not proceed, he turned to retrace his steps to the main stream and was astonished to see a dim reflection of himself on a slab of metal, which seemed as if plastered to the surface of the rock wall of the box canyon in which he found himself; the canyon was but seven feet wide. This metal he at once saw to be *solid gold* and he broke it loose with the small hatchet he carried for peeling the bark from cinchona trees. This side trip occurred on Sunday, "Domingo."

When Quispe returned to his village he showed this slab of gold to Francisco Velasco, who, naturally, became very much excited and he immediately sent for Manuel Estrada, a wealthy (relatively speaking) man of the village, to whom the Indian explained again in detail where he had found the gold; the two men offered him four head of cattle, if he

HIGH SPOTS IN THE ANDES

would conduct them to the place and he accepted the offer. A party was organized, and ten days later Quispe showed them the exact spot where he had chipped off the gold. There was no delay, for the Indian had remembered every ridge and every gully.

The vein was cut by the creek, the outcroppings of rich gold were exposed on both sides of the narrow gorge; this spot was named "El Suche," from a fragrant yellow flower that grew here in abundance and it is so called by the old-timers yet today. The thrilling part to us is that it is directly below this "El Suche," undoubtedly a continuation of the same ore shoot, where Clarence took out the bulk of the ore with which we paid for Santo Domingo! The Velasco-Estrada party set monuments, posted notices of denouncement and returned home via the high ridge down the Macho Creek to Oroya (you remember our last Christmas Greetings shows a picture of the swinging bridge at Oroya); here the Indian, Mariano Quispe, the discoverer of this slab of gold, fell over a cliff and was drowned. His body was never recovered nor were the four head of cattle ever delivered to his heirs. To find the heirs of Mariano Quispe now would be like trying to find the heirs of a John Smith in the States—there would be thousands of claimants.

Mr. Yungling saw this slab of gold, called "Espejo de Oro" (Mirror of Gold), at Velasco's home in Macusani; it weighed forty-seven Spanish ounces, was worth approximately \$900; he said it was a beautiful, massive nugget, an alluring specimen of nature's handiwork—no wonder he wants to find more like it!

The following dry season Velasco and Estrada installed a small four stamp mill on the creek, on an artificial flat, which can still be seen just around the bend from our present camp; this mill was driven by a small overshot water wheel; they saved an average of fourteen ounces (\$280) per day, grinding only selected ore, the very richest, and losing at least 40 percent of the values in the tailings.

Four years later United States citizens come into the picture: in 1894 Mr. W. L. Hardison, President of the Union Oil Co. of Santa Paula, California, came to Peru to investi-

THE STORY OF THE SANTO DOMINGO MINE

gate the oil fields; while in Lima, he was shown some very rich samples of gold ore by a Dr. Alejandro, the samples being owned by a Sr. Pando, who claimed the specimens came from his mine on Maco Tacuma, just across the ridge from the very rich Santo Domingo mine. Mr. Hardison agreed to go with Pando to inspect the mine with the idea of purchasing it. Mr. Hardison was accompanied to Peru by Mr. Chester Brown, now a retired capitalist of Los Angeles; these two men, with Pando, traveled five hundred miles by sea from Lima to Mollendo, then by rail from Mollendo to Tirapata as men travel today, but there was no road then from Tirapata to Huancarani nor any canyon trail from Huancarani to the mine as now. These men made the hazardous, difficult trip into the *montaña* (Green Hell) via Macusani and Coaza, following Indian trails on the almost knife-edge tops of the ridges between the canyons, and sometimes the trails led into the canyons, wading or swimming the rivers, sleeping in Indian huts or in the open. It is sixty miles from Tirapata to Macusani, thirty from Macusani to Coaza and another thirty from Coaza to Santo Domingo; all this way on mule or on foot, very likely two-thirds of the way on foot; today, with a good trail from Coaza to the mine, it takes an Indian with llamas six days to bring us potatoes. The three men spent a day and a night at the Velasco-Estrada camp, crossing the divide the next day to Pando's mine; they found the tunnel in the mountain but no mine, no ore in sight.

Mr. Hardison made up his mind that the samples shown him were from Santo Domingo, so he negotiated with Velasco and Estrada to purchase the Santo Domingo mine for \$210,000, paying \$10,000 cash and an option for ninety days to pay the balance. Returning to the United States, he formed a company consisting of Senator Emery of Bradford, Pennsylvania; Joseph Seep, Charles Collins and others; this company supplied the funds for the purchase of the mine and what was considered necessary for expenditures to develop it.

A few days after giving the option, the owners struck an extremely rich zone in two of their four tunnels; in their eagerness to work it out before the option expired, they

HIGH SPOTS IN THE ANDES

gutted the ore body, putting in a stick of timber only when absolutely necessary for their work, with disastrous consequences to the American company later. (Now the timber gang ranks in importance with that of mill or mine; about one hundred Indians are constantly employed in cutting down the huge logs and transporting them down to the mine on their backs, for only men have the skill to bring the logs along the precipitous canyon sides. Some parts of the mine smell like an old-fashioned drug store, for the mine is timbered with camphor wood, laurel, mahogany and rosewood, valuable woods that sell by the pound in the United States, yet being indigenous here, they grow all up and down the canyon slopes, as common in our canyons as the willows along streams in the northern hemisphere. But, of course, I have not smelled these woods *in* the mine, for, as I have written you previously, women are not allowed in any mine in South America as the Indians believe there will surely be a fatal accident if a woman enters the mine, and in some localities the same superstition holds for a priest.) On the eighty-seventh day of the option, arrived Mr. Hardison with his son, his nephew, Chester E. Brown, Theodore Gray and Paul Yungling. Mrs. Hardison, her two small children and the accountant's wife arrived a few days later. At that time there was no trail along the Santo Domingo Creek. Feature if you can, two women and two children following the creek bed, climbing over huge boulders, crossing the stream *one hundred and thirty-two* times, first one side, then to the other side, fighting their way through thick bushes, improvising ladders out of trees when necessary to climb precipices—a difficult enough feat for a hardy man—these women were certainly heroic, even though Indians helped them over the worst places and occasionally carried the children.

At once after the arrival of the six men, Velasco and Estrada informed Mr. Hardison that they had changed their minds and did not care to sell; they would return the \$10,000 deposit, but they would not give up the mine! Each and every one of the six Americans was armed with a Winchester carbine and a Colt .44 revolver; the six, with Velasco and Estrada, were seated on the porch of the building used

THE STORY OF THE SANTO DOMINGO MINE

as office, store and home of the Peruvian owners; some chickens were feeding on the ground about fifty feet away. Mr. Hardison, who ordinarily was an execrable shot with a revolver, drew his .44, shot the head off of a rooster, and calmly replaced his gun, as if that were not an unusual occurrence, while the other five did all they could to give the impression that they could easily do likewise. Looks of astonishment appeared on the faces of Messrs. Velasco and Estrada, they withdrew and in a few moments returned with the announcement that upon reconsideration they had decided to fulfill their agreement. And so, although Santo Domingo came by its name because the "Espejo de Oro" was discovered on Sunday (Domingo), its name might as appropriately have been changed to the less euphonious one of "gallo" (rooster).

The original owners, however, were so resentful of being dispossessed that they told the miners and Indian laborers that the "Gringos" were robbers, little better than murderers and that anyone who remained in camp did so at his own risk; with the result that there was a general exodus, leaving but the handful of Americans in camp. Before they were able to secure other laborers, the rains were upon them. And such rains! (We have a record of nine feet, one hundred and eight inches, in two months, March and April, twelve times a rainfall record in the United States, and we have another record of *five inches in two hours!* Muto San tells of a recorded rainfall of *ten inches in one hour* at Bella Pampa, but that, of course, like any unpleasant weather in California, is unusual.) This small group put in a miserable existence for nearly eight months, their supplies gradually giving out until they subsisted on rice alone, and were even without salt for two whole months. Mr. Yungling made several hunting trips up the Quitun canyon and was able to send back a few monkeys, a few parrots and other birds by Indians he met, whom he cajoled or forced by threats to do his bidding. When at last the wretched, half-starved but indomitable small group did receive supplies and had persuaded a few miners to work, they found all the tunnels caved in, due to improper or almost entire lack of timbering,

HIGH SPOTS IN THE ANDES

hence they were absolutely useless for mining. Two new tunnels were started, the Inca and the "Dos de Mayo" (May 2nd), but in the whole three years Mr. Yungling was with the company, not a ton of ore was taken out!

Estrada told Mr. Yungling that he and his partner had taken out more than \$300,000 worth of gold in the eighty-seven days of the option; Mr. Yungling himself met the train of llamas carrying out their last shipment of gold—six llamas, each with fifty pounds of gold, in all approximately \$90,000 worth—and not a *llamero* (llama herder) nor a guard in sight! Mr. Yungling waited around a half hour or so, every moment expecting to see the man in charge of all this gold, but not until he arrived at Quitun, an Indian village of a few huts (now a coffee plantation), late the following day, did he find the official guard, and this guard was dead drunk and remained so for several days. Thus the six llamas were wandering along the trail all this time, with those heavy burdens, with all that gold on their backs. I believe no flight of imagination could make us see \$90,000 worth of gold being carted around anywhere in the good old U. S. A. without someone to look after it; in our cities there would be the armored car plus mounted police, while the smallest village would have a constable or so to guard the gold. But aside from the danger to the gold, it was cruel to treat the llamas so: a good *llamero* unloads his llamas every evening and shifts loads in such a manner that each llama carries a load only every alternate day and he drives them but six to twelve miles a day, the llamas feeding as they go. And do you know that only the Indians can manage llamas? A Cholo or a white man can do nothing with them—they simply "do not understand the language" of any but a pure Indian. Some time later the Inca Mining Company, while never so careless as in the above instance, did have a "hold-up," which I will tell you about subsequently, and we take the utmost precaution with our shipments—the gold is carefully guarded from the time it is cast into bars until it is aboard the ship en route to the United States mint.

Thus endeth the tale of the time Mr. Yungling was here; the information until our arrival has been supplied by "old-

THE STORY OF THE SANTO DOMINGO MINE

timers" who are still employed here. Felipe, a one-armed man, whose arm was amputated by our doctor three years ago, was fishing at Maldonado with dynamite and did not let go of the fuse soon enough. When he arrived at the mine, the bone of the forearm was protruding and the flesh at its extremity putrefied; our doctor amputated his arm a few hours after he arrived, and he now looks after a little *chacra* (farm) where he raises fruit and vegetables for us; the farm is called Miraflores, meaning "Look, flowers," and is close to Oroya. I feel sure every city and large town in South America has a suburb called Miraflores, so Santo Domingo had to have such a suburb, too. Felipe remembers much of those stirring times and a good many of his "they says" and of the other oldsters, through much repetition, now pass as authentic.

Mr. Hardison as manager was relieved by Chester Brown, under whose capable management, the mine produced about \$12,000,000; fully five and a half of these millions, and very likely much more, were spent here in Peru for machinery and buildings at the mine and at Tirapata, in mills, in building roads and trails; the trail from Huancarani to the mine is said to have cost a million alone. Later huge sums were spent in rubber lands and in building a trail to these rubber lands; Mr. Wilson, one of our employees, had charge of the building of this latter trail and he relates many interesting and hair-raising tales of his encounters with the "Chuncos," the savage Indians; he and his workmen were always armed and had to be constantly on the alert for attacks from ambush.

And until 1905 the very location of Santo Domingo was in dispute; its discoverer was a Peruvian and all connected with the mine later had come in by way of Peru but Bolivian money was the only currency used, the workmen receiving their pay in Bolivian silver *pesetas*, and, until Santo Domingo was discovered, the boundary between Peru and Bolivia was indefinite, the Inambari River being considered by some as the boundary. Then in 1905 an English Commission was appointed to fix the boundary between Peru, Bolivia and Brazil; Col. P. H. Fawcett, whose disappearance many

HIGH SPOTS IN THE ANDES

years later in the Brazilian jungles is still perplexing his friends, for whom efforts are still being made to locate him, was made Head of this Commission. The boundary between Peru and Bolivia is now the Tambopata River.

From about May, 1912, the mine did not produce so well and there occurred a bewildering change of personnel, from manager down to peons, but even during Mr. Brown's régime and on down to 1914, when the Company was reorganized, Santo Domingo had more than its share of bad men, high-graders (those who steal high-grade ore) and lawless desperadoes; Mr. Spencer, inspector at the change-house, told me the mountain sides were dotted with the tents of the *comerciantes* (merchants or peddlers), who brought in alcohol with other things, and fighting affrays were frequent. So bad did the conditions become, that the management decided to put in a *cantina* (barroom) to try to regulate the drinking. Many are the amusing stories of the "bootlegging" that followed: bottles of alcohol cleverly tucked away in bundles of coca leaves and even in cans of rice or sugar. But there was an improvement for the apprehended bootlegger was not allowed to return. We have a dry camp with drinking troubles almost nil. Mr. Spencer told me most of the following stories:

1. A Gringo, named Smith, entered Botine's, the cashier's, office and began abusing him, calling him vile names for some fancied offense; Botine drew his .44 and shot him dead. Smith was buried without ceremony and there was no inquiry, no investigation of any kind whatsoever.

2. Mr. Brown, the Manager, at irregular intervals, would call the employees together to make a raid on the workmen's houses for gold; armed with rifles, the twelve Gringos would search every house—during the search no other person was allowed to enter or leave one of these houses under penalty of being fired upon; always the searchers found gold, and once they found a workman grinding ore in his house in his own mill! These "secondary" clean-ups invariably paid well.

3. Doroty, an assayer, went for a walk while waiting for the mail to arrive—and mail at that time must have been

THE STORY OF THE SANTO DOMINGO MINE

even more of an event than it is today; when he had not returned that night, a search party was organized to hunt for him but to no avail. Some two weeks later a group of men getting out timber found his body leant against a tree; so badly mutilated was the body, that it had to be brought to camp in a sack for burial; the cause of his horrible death remains a mystery but suspicion naturally points to "Chuncos," the savage Indians.

4. The "Hold-up": An American (of course), named Howard, and an Englishman, name forgotten, both former employees of the mine, decided to hold up the shipment of gold. They were, naturally, familiar with the *modus operandi*; they stopped several parties going out but somehow missed the one with the gold; they finally decided they would take the payroll coming in, since the conveyor of the gold had "outsmarted" them; so they held up the postman at Aricoma, the summit, but again they were out of luck, for he had only the mail. So they came on down to Agualani and compelled the foreman in charge of the road work there to accompany them, with his sack of silver *pesetas*, almost as far as Oconeque, then merely a camp; but the bandits had been hanging around so long, had stopped so many people, that the whole countryside was aroused, soldiers had been sent for and now the pursuers were hot on the bandits' trail. Many shots were exchanged and the robbers, becoming frightened, took the sack from the road boss and "beat it" into the brush at Oconeque, where they buried the money. That money has not been found to this day. Howard, after killing four or five men, made his way to Bolivia, where he is still living; Mr. Othick, our millman, knows him and says this attempted hold-up was his last misdeed; he did send a man to Oconeque for the sack of *pesetas* but his envoy failed to find the cache. Since Oconeque provides most of our fruit and all our vegetables, it had been pretty well dug over, yet there is always the chance that our trail rider, who is the *Jefe* (Chief) at Oconeque, may find that cache of silver. The Englishman's whereabouts are unknown.

5. A man killed in the mine was brought out by his fellow workers, who first stuffed his pockets with gold—for, of

HIGH SPOTS IN THE ANDES

course, a dead man would not be searched—and later the corpse bearers divided the spoils!

6. An Italian shift boss was seen coming out of the mine with a heavy load of gold; when he saw he was discovered, he disappeared in the brush, hid the gold and made his way to Macusani, where he died. He was heard to say many times that if he could only get back to Santo Domingo, he would have enough to keep him in luxury the rest of his life. So here is another hidden treasure.

7. So brazen were the high-graders, so flagrant became the thefts of gold, that in 1905 a change-house was built. (By smuggling out ore, these high-graders often made more in one day than they earned as miners in a month or even two months. A piece of ore, half gold and half gangue, about the size of a quarter pound cake of chocolate, would weigh two or three pounds and would bring the high-grader \$200 or \$300. He would never get the full value, for he would sell it to a bootlegger-peddler, but even so, it was many times more than he could earn legitimately.) The change-house was looked upon as a gold-trap by the miners, as they had to change their clothes on entering the mine and again on leaving, they and their clothes under inspection. When the change-house was first put to use, a big strike occurred and many lawless acts were committed; dynamite was freely used but, fortunately, no serious damage was done. Several years later the change-house was burned down to the ground—unquestionably incendiary—and we had to rebuild it shortly after our arrival but this time there was no indication of a strike.

8. Hugh McDermott, working in the cyanide plant, sent a "raw" Indian to get him a glass of water; the Indian turned on the tap of a cyanide tank and brought this water to Mr. McDermott, who drank it all and dropped dead with the glass in his hand. (I remember from my pharmacy experience that the only antidote for cyanide poisoning was to send for the undertaker.)

9. The telephone line from Tirapata to the mine was completed in 1901. The Indians, wholly ignorant of the need of the line being entire in its 140 miles, would cut off as

THE STORY OF THE SANTO DOMINGO MINE

many feet of the shiny copper wire as they might want to use for their immediate needs. One day a line repairer saw an Indian with his machete bound with copper wire, so he took him and his machete to the "Governador" at Limbani. The Gobernador had the Indian's home searched and there a whole roll of the Company's copper wire was found; the Gobernador summoned all the Indians of his district, publicly flogged the thief in the plaza and this ended wire stealing for a long time. We are occasionally annoyed by having our telephone line tampered with and our line repairer is positively hankering for a chance to mete out a similar punishment to the miscreant.

10. Another scheme of high-graders was to wrap the gold in an old rag or tie it to bits of wood, then drop the bundle in the stream of water pumped out of the mine into the drainage canal; to stop this the canal was emptied daily at irregular intervals and the inspector was paid a commission on the gold recovered from the canal; one month, Mr. Spencer said, his commissions amounted to S./400, at that time \$160.

11. An Italian *barretero* (miner), who always wore a jaunty yachting cap to work and who was accustomed to coming out earlier than his fellow workers, was stopped by the inspector, who merely wanted to ask him the time; the miner looked so scared that the inspector reached over and jerked off his cap—and out fell more than a pound of gold!

12. For some time the lower-grade ore from the mine was concentrated by grinding it and flowing the ground-up ore over vibrating tables in a stream of water so that the heavy high-grade particles settled at one end of the tables; these high-grade concentrates were dried, sacked and sent out by pack train to the railroad and thence sent to the smelters where the gold was separated. Once a mule with two sacks of concentrates fell over a cliff on the trail between Oconeque and Limbani; Mr. Spencer, the "light-weight" of the party, was let down over the cliff by a rope into the canyon, but he saw no sign of the mule and but one sack of the concentrates; the mule and the other sack had been carried down the swift stream, perhaps even into the Inambari.

HIGH SPOTS IN THE ANDES

(Later the management gave up sending out concentrates; the crushed ore was amalgamated with mercury in mills and the residues containing the chemically combined gold stored in tanks. These residues are to be treated by the "cyanide process" and roasted in a furnace, now in the building; we have thirteen huge tanks, containing approximately 5,000 tons of concentrates with an estimated value of from \$80 to \$100 per ton and, of course, the mills are adding to these tanks every day.)

13. Not all the high-graders were Indians or common workmen: an *assayer*, who analyzed samples of ore and concentrates to estimate their value, made thin sheets of gold in his laboratory and sent them to his family in flat packages, labeled "photographs."

14. One *manager* blew up the old mill (the so-called new one is the one we are now using) with dynamite, appropriated S./10,000 (\$4,000) and left for Bolivia "without leave."

15. One *engineer* came to Santo Domingo with but *one* book, Rickert's *Fire-Assay*, and he departed with an immense library, several large, heavy boxes labeled "books"—he took out at least a ton of rich ore or of gold.

Thus endeth these tales; which do you think the best? To me, No. 5 is the most shocking. High-grading is always a serious problem in any gold mine and constant, unremitting vigilance is necessary. Just the other day Clarence found a beautiful gold specimen near the track—it contained at least three ounces of gold (\$60). He thinks it must have been thrown off by a carman during the night and a confederate was to have picked it up; but Clarence, always an early riser, made his usual rounds somewhat earlier this morning; and it was in this way that he found reason to suspect Mamani, a carpenter, one of the "original thirteen" who were here when we arrived. Clarence met him on the track several times, too early to be reporting for work; his house was searched and, sure enough, more than \$300 worth of ore was found under the kitchen floor. This collusion between carmen and outside workers is, of course, the most difficult to ferret out: the track from "*la boca de la mina*" (the mouth

THE STORY OF THE SANTO DOMINGO MINE

of the mine) to where the ore is dumped for the crusher, is a quarter of a mile long, curves somewhat, and although a string of electric lights illuminates the entire distance, yet, at night, a carman can "take a chance" that he will not be caught. The underbrush and all vegetation are cut close to the ground on both sides of the track; a window in the change-house gives an unobstructed view for fully two-thirds of the distance, while a window in the surveyor's office at the other end of the track gives a view of the other third, so there is not much possibility that a carman would risk throwing off pieces of high-grade ore during the day shift.

About 1912 the price of rubber dropped to less than the cost of transportation from Astillero to Tirapata, let alone the added cost of production. While the Inca Rubber Company was a separate unit, yet that company and the Inca Mining Co. had the same stockholders; at one time more than 500 mules were carrying rubber over the Santo Domingo trail. At this time the mine's production could not keep pace with the high-graders and there is a colorful interlude of about two years when the men in authority were often worse high-graders than the miners! Be it known that the men most interested in Santo Domingo financially were not mining people at all, they were oil men, who almost never gave Santo Domingo personal supervision.

In 1914 with a reorganization, the name of the Company was changed from the Inca Mining Company to the Inca Mining and Development Company, which appellation it retains to this day. Senator Emery became chief stockholder and he took an active and personal interest in Santo Domingo up to the time of his death in 1925; he was an oil man also and the only oil man who, in defiance of Rockefeller, was able to keep his refineries operating and to maintain an oil line from his Pennsylvania oil fields to the Atlantic coast; you will remember that Senator Emery was one of the original promoters who sent the first American party down here, of which Mr. Yungling was a member.

A multimillionaire and at an age when most men retire, Senator Emery spent a great deal of his time at the mine; he had great faith in the gold possibilities of this region, he

HIGH SPOTS IN THE ANDES

believed it to be another Rand, and whether Santo Domingo paid or not, he continued to devote his time, his energy and his money to this, his "pet" project. He spent \$200,000 for a 540 H. P. hydro-electric plant at Bella Pampa, which was never completed in his lifetime. (We have just finished its installation at an additional cost of \$10,000. It has been functioning since the first of June and now we can really enjoy what little sunshine we have—before this plant was operating, we were always fearing a shortage of water if the sun shone more than a day or two in succession. The Tunkuipata power plant has given sufficient power for all purposes except in extremely dry weather, but with the Quitun River now supplying the power at Bella Pampa, we are not dependent on the rains. And we now have excess power for other mines.) Mr. Emery spent another \$200,000 for an all-slime cyanide plant, which gave but 10 percent extraction: in his many trips back and forth to the States, he met engineers from South Africa, who expatiated on the low cost of extracting gold by the cyanide process, so he was eager to try out the process here. "Pop" Ridgeway, his metallurgical engineer, advised him that the Santo Domingo ore was not amenable to the cyanide process but he insisted upon installing such a plant nevertheless, and when told that he would be wasting his money, he replied, "It is my mine and my money and I'll do as I d— please." Of course, Mr. Ridgeway resigned. We are now using this plant by installing a roasting furnace. There were many other heavy expenditures but the Bella Pampa power plant and the cyanide plant are the two outstanding ones.

However, aside from being the chief stockholder, Mr. Emery really enjoyed living in Santo Domingo; he liked the climate, spoke of it as perpetual spring, and he preferred to live in the house in which we are now living, to his luxurious home in Bradford, Penn., or to his palatial summer home in the Jamaica Islands. At eighty years of age, he would trot his mule over the dizzy heights of Bandarani and other scary places on the trail, where young men of twenty or thirty would dismount and lead the mule. Many are the stories recounted of his eccentricities: he would pick up old, rusty

THE STORY OF THE SANTO DOMINGO MINE

nails and tin cans, insisting they be used again, yet he was most generous in his benefactions; he spent money freely on any big idea but he could not bear to see the slightest thing wasted. He wore overalls, fraternized with the laborers and even worked right along with them as stone mason or carman, collecting his two *soles* (at that time about eighty cents) at the cashier's window, and then he would spend his wages for cigarettes or candy to distribute among the workmen.

Mr. Emery made no attempt to learn Spanish and many amusing anecdotes are related of this linguistic lack: the cockroaches were so numerous at the Casa Santo Domingo that he had the kitchen walls lined with tin sheets from the empty five-gallon cans and there are plenty of cans, for all flour, rice, sugar, etc., must be brought in in well-soldered five-gallon tin cans on account of the heavy rains; the tin walls were then painted and when finished, he went in to inspect the work. Tornella, a big, fat Italian cook, in charge of the kitchen, could speak no English. Mr. Emery said, "Now, see, Tornella, you will not see any more cockroaches." Tornella, with the customary Latin politeness, doffed his cap and said, "*Si, si, Señor.*" (Yes, yes, sir—but the "si" is pronounced "see.") So Emery answered, "But, damn it, man, I tell you you won't see any more." Then there is the story of a telegram sent to his home from the office which read: "*No hay de esta en Tirapata*" (There is none in Tirapata), referring evidently to some supplies ordered. Mr. Emery sent back word to the office that he knew positively that there was plenty of *hay* in Tirapata, for he had but recently purchased enough to last a month! "*No hay*" (pronounced i, long), meaning *there isn't any* or *there are not*, is used almost as much as *mañana* down here; "*no hay*" is a provoking refrain of the servants, for it is so much easier to just say, "*no hay*" than to look for something. Once in Lima he wanted to order ham and eggs for breakfast and told the waiter to bring him "*jabon and huecos*"—soap and holes.

In teaching the Indians to use wheelbarrows (I saw an Indian just yesterday carrying a wheelbarrow on his shoulders instead of pushing it), Mr. Emery would hit them on the elbows with a big stick; yet all the laborers liked the "old

HIGH SPOTS IN THE ANDES

man" or "*tata*" (father) as they affectionately called him; one of the old-timers told me last week that Mr. Emery once asked him for a cigarette, the only time in his life that a millionaire had asked him for a cigarette, and he is still so proud of the honor! Mr. Emery "fired" a Gringo, then made him take a gold brick to the United States mint for him!

Shortly after Mr. Emery's death, the mine was closed down as his heirs were not interested in mining. Mr. Emery's faith in the Inambari district, an unabated faith until the day of his death, was based on his own observation and its early history as well: more than \$200,000,000 worth of gold taken out from the time of the Spanish Conquest in 1535 to the time of the expulsion of the Jesuits in 1775, and this more than \$200,000,000 of gold put the world on the "gold standard"; from 150 to 200 mines in operation, the largest of which, the San Juan del Oro, shows a pit from which 50,000,000 cubic yards of gravel have been worked, with untold millions of cubic yards still remaining, for this old river channel is known to extend to the mouth of the Inambari River, many, many miles below; and there is no doubt that a great part of Atahualpa's ransom came from this region. Mr. Emery might have seen this faith justified, had he been permitted to live a few years more, for "rich strikes" are being reported, a thousand Indians are working the streams of the Inambari today and many mines are in the process of being opened up.

Aren't you tired? Better leave the rest for another day and again make yourself comfortable, for it will be a long recital of how we happened to come to Santo Domingo and then some of the "high spots" in our life down here.

You remember that our home at Chojñacota (tin mine) in Bolivia was very, very high: our home was 15,623 above the level of the sea and the mine was a thousand feet higher; the entire Quimse Cruz (Three Crosses) section, of which Chojñacota was a part, has the rest of the world, in my opinion, "backed off the map" for scenic beauty; I still rave over Chojñacota's towering peaks, capped deeply with everlasting snow—the ever-changing but always interesting and fascinating glacier in our back yard, and the three large, sometimes

THE STORY OF THE SANTO DOMINGO MINE

small, wonderful, now sapphire, now emerald, lakes in our front yard. But when you bear in mind that we were actually living at an elevation much higher than Mt. Rainier or Mt. Shasta, more than a thousand feet higher even than Mt. Whitney, the highest peak in the United States, you will agree with me that we were really "living high." Unfortunately the excess of grandeur and scenic beauty could not make up for the lack of oxygen; I think I still hold the record for living the longest period of time, three years, of any white woman, at such an altitude, yet I seemed to thrive on it; but it was too much for Clarence and at one of our enforced vacations at the seacoast, where he always recuperated so rapidly, we decided to seek a lower level for our next abode at the first opportunity—and that opportunity presented itself while on this vacation.

All mining people had heard of Santo Domingo from its very inception on account of the richness of the "strike," and later on account of the "high-grading," which has been notorious, and which still persists in spite of every precaution; just yesterday Clarence had to "send down the hill" two miners for quarreling, and always when sending a workman "down the hill" he is searched and one of these belligerents had high-graded nearly a half ounce of gold. When Clarence came to Bolivia, nine years ago, he met an engineer, a Mr. Rand, on the boat, who was "ticketed" for Santo Domingo, and he entertained the group of mining people on the ship with stories of the wonderful richness of the Santo Domingo ore and of the clever high-graders. One of the shift bosses working for Clarence in the Huanchaca mine, that once fabulously rich silver mine at Pulacayo, told Clarence that in his last month of employment at the Santo Domingo mine he took out enough gold to get £800 Peruvian (\$3,200) cash for it—and this same shift boss had the nerve to ask Clarence for a job here shortly after our arrival! At Chojñacota there were several workmen who boasted of how much they had high-graded at Santo Domingo and they, too, later applied for jobs here!

Returning from the coast to Chojñacota, we took a side trip to Cuzco, the ancient capital of the Incas, and while

HIGH SPOTS IN THE ANDES

on this train, an army officer and Clarence "passed the time of the day" and were soon discussing the mining possibilities of Peru; in the meantime I was quite interested in the officer's wife and their eight children, the eldest fourteen and the youngest a babe in arms; such a young-looking, happy mother and such well-brought-up children, the older ones looking after the younger ones; it was a joy just to watch them. The officer knew Santo Domingo and as we neared Tirapata he said to Clarence, "Let's get off here, perhaps there will be someone from Santo Domingo at the station." And, sure enough, there was an ex-shift boss to whom the officer said, "How's Santo Domingo?" and the shift boss replied, "The mine is all right, is good, but the manager was crazy." There was time for no more as the train stops at Tirapata only long enough for passengers to get on and off but the shift boss's remark made an indelible impression on Clarence, and shortly after our arrival at Chojñacota he wrote the Emery heirs for permission to examine their mine.

The permission was granted and at our next regular vacation in January—we were expected to take a vacation every six months to get out of the high altitude—Clarence came to Santo Domingo, while I visited with our good friends, the Bells, in La Paz. Clarence at once recognized this section of the country as of gold formation, very closely resembling the "mother lode" section of California, and even if Santo Domingo had been a "washout," he would have, very likely, come over here to prospect. He was pleased, however, with the possibilities he saw in Santo Domingo and he made as thorough an examination as his time allowed and saw three places where possible ore shoots might have been overlooked; he took seventy samples; in fact he was so well pleased that he immediately wrote the heirs, before he assayed the samples, that Santo Domingo had a possible value and if given an option for two years, he would take the mine at the price offered.

Clarence then sent his report on the Santo Domingo mine to the company by whom he was employed at Chojñacota, telling the company that the mine had no cash value but that it had wonderful possibilities; that if it were located in the

THE STORY OF THE SANTO DOMINGO MINE

United States and with this option, he would stake his reputation as an engineer that he could pay for the mine with but thirty days' credit. But, due to the mine being in a foreign country and it having been shut down for some time, he would need \$15,000 cash and a credit of \$10,000 more to draw on, if necessary. He included in his report that the Santo Domingo mine was the biggest monument to inefficiency that he had ever seen. But the company was not interested.

Clarence received a telegram from the Emery heirs that his offer was accepted and as the Chojñacota Company had turned the proposition down, we decided to take it over "on our own." Mr. J. A. Othick, an experienced millman, formerly with this same Chojñacota Company, and also "fed up" with high altitudes, agreed to come with us, and the day before we left, Charley Patra, whom Clarence had known years before in the Idaho mines, and who had had charge of the electric plant at Chojñacota, returned from an extended vacation, and he asked if he might go with us, too. So, on *Friday*, the 13th of July, 1928, the four of us said "Adios" to this lofty aerie in the rugged Andes, which had been Clarence's and my home for three years, but Othick and Patra had lived there much, much longer.

We were several days in La Paz, finishing up business affairs, getting our passports viséd, etc. (So it is almost four years now since I sent you a detailed account of our trip, with special emphasis on the wonderful, beautiful and "scary" famous Santo Domingo trail.) I still remember how we left Bolivia with mingled feelings of regret and joy; regret to leave our friends, joy in the anticipation of new adventures ahead and joy to leave the excessively high altitude; we left Bolivia with high hopes in our hearts and with but an even thousand Peruvian pounds (\$4,000) in our pockets! We arrived at Santo Domingo *Friday*, July 20th; Muto San, a Japanese electrician, who had had charge of the mine most of the time since it was closed down, and who had placed every facility possible at Clarence's disposal for examining the mine the previous January, met us at the turnstile with his far-famed broad smile and conducted us to our

HIGH SPOTS IN THE ANDES

home; here in a conspicuous place, he had perched a stuffed, beautiful blue bird and had put a slip of paper in its bill with the typed inscription: "Mr. and Mrs. Woods, WELL-CAME." It was a pretty conceit, and the blue bird for happiness with its yellow breast signifying gold, was taken as a happy augury for the future.

Muto San had *thirteen* men working for him, keeping water out of the mine, as carpenters, or on what repair work was absolutely necessary to keep the mine from becoming a complete wreck. Of these "original thirteen," eight are still here; two were "canned" for high-grading and the other three will return soon from vacations. We four and Muto are still here but "Don Carlos" (Charley Patra) is just now placer-mining on Santo Domingo Creek "on his own" and is making good. The executive staff has increased to ten. I was the only white woman in camp for just a little more than a year. Was I lonely? Not at all—I had thus been alone in Chojñacota and for about the same time but with this difference: here we were "on our own" and each daily incident became much more significant. Still, you remember these lines: "Loneness lacks but one charm to make it half-divine—a friend, with whom to whisper, 'Solitude is sweet.'" And, you, Iva, I would have chosen as that friend. On July 25th a year later, and the 25th is Clarence's birthday, again Miss Krause arrived to make it two white women in camp; but this time Clarence and I met her in Juliaca and the three of us came to Santo Domingo just in time to celebrate, for Muto surprised us with an elaborate birthday cake of his own making.

With these thirteen men as a nucleus, we started to work: Clarence took charge of the mine, Othick of the mill, Muto of the store and bookkeeping, and Patra of the electric plant at Tunquipata, while I, I cheered them on. Our Gringo men did all kinds of work wherever and whenever necessary, pushing cars, laying track, mending pipe line, mucking—anything that had to be done—until sufficient men had come to relieve them of the most onerous labor.

Clarence found conditions much better than he had hoped for and on August 1st, just ten days after our arrival, the

THE STORY OF THE SANTO DOMINGO MINE

mill was grinding ore, which was being brought out regularly, although day shift only, from the mine. On *Friday*, August 31st, we had our first clean-up, 132.7 ounces (\$2,641.40), and never, never will another clean-up look so big to us. Remember we came here with only \$4,000 cash and the second week here Clarence had to pay \$1,800 to the Government for water rights at Bella Pampa! But our first clean-up yielded more than enough to meet our payroll and we were all jubilant. Our second clean-up, September 30th, was 256.08 ounces and the third, 607 ounces and the production continued to increase until, after twenty-two months, we had enough to pay for the mine and \$60,000 surplus in the bank. Were we happy? Triumphantlly so.

There were, of course, some setbacks, it was not all smooth sailing. On March 20, 1929, eight months after our arrival, we had a terrific electric rain storm lasting but one half hour, yet what a calamitous half hour. The lightning burned out our hydro-electric plant at Tunquipata; the floods washed out half of the flooring of the warehouse, causing the loss of 9,000 caps, all the dynamite and all the fuse and other materials, amounting to a direct loss of \$10,000, but an even greater indirect loss in the time consumed for replacing the dynamite; 300 feet of the flume to the mill were washed out; six huge landslides and many small ones obstructed the trail—all this took place between five-forty-five and six-fifteen P.M. It was raining slightly when Clarence and I started to Casa Santo Domingo for supper but before we arrived, merely three blocks, the rain was actually pouring through my umbrella—we thought it another deluge; before we had half finished supper, reports began to come in of the damages inflicted. We had lighted candles in the dining room when the light was so suddenly extinguished but it was pitch-dark outside and the rain was gushing down in torrents; from the porch it came down in sheets, while from the embankment opposite, the stupendous, roaring waters looked and sounded like a real Niagara; the storm lasted a brief half hour but it was an awe-inspiring thirty minutes. The men, carrying carbide lights, bringing the news of the various disasters, made me think of giant fireflies coming out of the Stygian

HIGH SPOTS IN THE ANDES

blackness to the only illuminated spot in the whole camp. Also carrying a carbide lamp, Clarence brought me home; we had to wade knee-deep in the mud and to climb over high piles of slippery, muddy rocks, for there were three *derrumbes* (landslides) between Casa Santo Domingo and our home. Clarence put on hip rubber boots and went out to inspect the extent of the calamity but, of course, nothing could be done until daylight. And at daylight, every available man was at work: at one-thirty p.m. the electric "juice" was again on; at one-forty-five the flume was repaired, and at two o'clock the mill was running; at five, the trail was ready for regular transportation. To me, the trail-repairing job was the almost miraculous thing—when I saw the stupendous slice cut out of the road, I was sure it would remain impassable for at least a week and yet, in less than twelve hours, mules could and did pass over it. Our workmen do need much supervision, but in time of stress one could not ask for more loyal workers. The following day, the new flooring for the warehouse was laid three feet higher than the one that had been wrested from its foundation and in splinters was carried away with its costly cargo, also in shreds, pellmell down the raging, rampant Santo Domingo Creek; not even a foot of insulated wire was salvaged. The new flooring up to date has withstood all floods.

On September 9, 1929, we had our first fatal accident: a miner was killed instantaneously by a falling rock in the stope in which Lee and three other workmen had just entered; the two preceding workmen miraculously escaped, while Lee, bringing up the rear, sustained severe bruises from falling fragments of rock. We were all saddened by the tragic but unavoidable misfortune and yet we were grateful that Lee escaped death and the two workmen escaped injury.

We have had our share of high-graders; their names are on the "black list" and, of course, no high-grader is allowed to return, but you would be surprised to know how many beg to come back; after being absent six months or so, they plead that they have been punished enough!

On January 31st, 1929, in smelting the gold after the

THE STORY OF THE SANTO DOMINGO MINE

regular monthly clean-up, our son, Lee, was helping for the first time; Mr. Othick and Clarence, "old hands" at the process, forgot to give Lee detailed instructions and in lifting the red-hot crucible from the furnace, instead of setting the crucible back on the circular pouring device, as they should have instructed him to do, he started toward the mold with his half of the tongs, while Clarence tried to put the crucible back on the device, with the result that the entire mass of liquid gold, more than \$11,000 worth, was spilled on the ground! Dr. and Mrs. Graybill were visiting us at the time and they and I were witnesses of the catastrophe; we were all too stunned by the mishap to move—and most fortunately no one was burned by the spattering—nor was the tense silence broken until Clarence, who, ordinarily, is not given to swearing, said, "Damn everything an inch high!" And this made Dr. Graybill laugh so heartily that the tension was broken; then each and every one of us got down on our hands and knees and helped to dig for that buried gold, and this "seem-so" disaster was not a setback at all, for we actually recovered *more* gold than was spilled! The smeltery is the same one that has always been used and, no doubt, gold has been spilled on various occasions, and we recovered some of this in addition to our own.

Two more stories, which I forgot to include among the previous fifteen, and then I'll add "Finis" to the Story of Santo Domingo. These are to illustrate the stupidity of the Indian and why such constant supervision is necessary. Mr. Yungling told this: An Indian was sent up the steep mountain side to cut down certain specified trees, and as the declivity was almost vertical he was told to tie himself to a tree while chopping—this is still being done here—but this Indian, instead of tying himself to an adjacent tree, tied himself to a tree and chopped down the same tree *below* where he had tied himself! He and the tree came hurtling down the precipitous mountain side into Santo Domingo Creek, scarcely enough of the Indian left for burial. Clarence and I climbed to the top of this ridge recently—it is the road to Chabuca, a neighboring placer mine—and Clarence showed me the exact spot of this tragic occurrence.

HIGH SPOTS IN THE ANDES

Mr. Maycumber, our metallurgist, tells this less tragic one: he was directing the work of several Indians, one of whom was working inside of a large box; the box had to be moved, so he told the Indian inside where to move it. He left with the other Indians but returned in a few minutes, to find the Indian, still inside the box, making strenuous efforts to move it! Mr. Maycumber yanked him out and "booted" him to the end that needed to be shoved; this Indian, perhaps, will never try again to move a box with himself inside, but *Quien sabe?*

Now, in conclusion, I presume you, like so many other of our friends, wonder why we remain in the tropics, down here amid the mules and the Indians, that are as much a part of the "landscape" as the mountains and the rivers themselves; why we still remain in such isolation, 140 miles from a railroad; why we bother about the Inambari Concession, when, with Santo Domingo, we have apparently "chained the wolf." Ah! we, too, have great faith in this region and *Quien sabe?*—perhaps it will be Peruvian gold that will restore the gold standard to the world. Besides, it is just stacks of fun to day dream and have visions of helping to relieve the distress of the world, be it ever so small a contribution; to dream dreams of sending the promising young men and young women of this country (and there are many such as I know from my teaching experience in La Paz and in Cochabamba and from observation of the children in our camp here)—sending these young people to our Alma Maters, that they may become the future engineers—mining, hydraulic, agricultural, sanitation, and household engineers—of this vast territory, full of resources and, as yet, practically untouched. Visions? Yes. But, "Where there is no vision, the people perish," hence, we are living abundantly.

GLOSSARY: OUR OWN MAKE

Accidentado—One hurt in an accident.

Acelgas—First cousin of spinach.

Aduana—Government Custom House.

Aji—Indian pepper.

Almacen—Store, warehouse or shop.

Almuerzo—Noon meal.

Altiplano—High plain, plateau.

Arriba—Above.

Arriero—Muleteer.

Asilo—Asylum.

Autocarril—Automobile adjusted to run on railroad track.

Azul—Blue.

Balsa—Canoe-like boat made of reeds. Also a tree.

Balsero—One who manages a *balsa*, a canoeist.

Barrilla—Literally, a little bar; tin concentrates.

Batea—Wooden bowl for panning gold.

Bayeta—Hand-woven woolen cloth.

Bienestar—Welfare; well-being.

Blusa—Blouse.

Boca de la mina—Mouth of the mine.

Boliviano—Bolivian coin, "dollar," worth normally 33 cents.

Bolsa—Purse, pouch.

Botica—Drug store; pharmacy.

Caballero—Gentleman.

Café con leche—Coffee with milk.

Calamina—Galvanized iron.

Calle—Street.

Camion—Truck.

Camote—Sweet potato.

Cancha—Field, such as football field; yard or area.

Cantina—Canteen, bar.

Carcel—Prison, jail.

Casa—House.

Castilla—Heavy cloth usually of wool for Chola skirts.

Casucha—Small shop, usually where *chicha* is sold.

Centavo—Cent.

Centenario—Centenary.

Cinema—Movie.

Coca—Plant extensively cultivated in Peru, Bolivia and other parts of South America; source of cocaine; its leaves are chewed for their narcotic effect.

Cocal—Coca plantation.

GLOSSARY: OUR OWN MAKE

- Coche*—Parlor car.
Comadre—Godmother.
Comerciante—Peddler, or merchant.
Cometa—Comet; kite.
Compadre—Godfather.
Copa—Cup.
Costumbre—Custom, habit.
Cuadrilla—Crew.
Culebra—Non-poisonous snake.
Cura—Curé, priest.
- Chacra*—Small cultivated area, small farm.
Chacuri—Pack ant (Quechua).
Champaña—Champagne.
Chancadora—Ore crusher.
Chicha—Fermented drink of corn, peanuts or grapes.
Chico—Small boy.
Chofer—Chauffeur.
Cholo—Mixed breed.
Choza—Hut.
- Dar á luz*—To give light, to give birth.
Derrumbe—Landslide.
Desayuno—Breakfast.
Despedido—Farewell party.
Despensa—Dispensatory; pantry; storehouse, or store room.
Direktor—Director, superintendent, principal.
Domingo—Sunday.
Dos de mayo—Second of May.
Dos en punta—Two o'clock sharp.
- Ekeko*—Dwarf (Quechua).
Empleado—Employee.
Espandosa—A tropical plant with giant leaves.
Especerias—Groceries.
Espejo—Mirror.
Espejo de oro—Mirror of gold.
- Fardo*—Bale, parcel.
Feliz viaje—Happy journey.
Fiesta—Feast, holiday.
Finca—Land, a small farm.
Fresco—Fresh, non-alcoholic beverage.
Fundicion—Smeltery.
- Gallina*—Hen.
Gallina de la montaña—Wild chicken.
Gallo—Rooster.
Gente decente—Literally, decent people, the upper class.
Gerencia—Manager's home.
Gerente—Manager.
Geta—Drop.

GLOSSARY: OUR OWN MAKE

Goma—Gum, rubber.

Gringo—A foreigner.

Haba—Bean.

Hacienda—Estate, large farm.

Hay—There is, there are.

Hombre—Man.

Hualusa—Japanese potato.

Huelga—Strike.

Internado—School boarding house for boys.

Jacaranda—A tree of great fragrance.

Jefe—Head, chief.

Jergón—Literally, a coarse cloth used by the Indians: a poisonous snake so called from its resemblance to this cloth.

Juegetón—Playful, non-poisonous, green snake.

Leche—Milk.

Lejia—Lye.

Llama—South America's most utilized animal, cousin of the camel.

Llamero—Llama herder.

Llijilla—Shawl for carrying burdens on one's back (Quechua).

Loco—Crazy.

Lomita—Sirloin steak.

Maestranza—Work shop.

Manta—Shawl.

Manta blanca—Pestiferous insect, like a gnat, with white wings.

Mayor domo—Major domo, boss.

Medico—Doctor.

Minero—Miner.

Mozo—Youth, servant.

Mula—Mule.

Mulero—Muleteer.

Muñeca—Doll.

Muy—Very.

Niño—Child, boy.

Oficina—Office.

Olla—Pot.

Optionista—One to whom an option is granted.

Panadero—Bread vender.

Pantano—Swamp.

Papa—Potato.

Pase libre—Free pass.

Paseo—Walk, excursion.

Patita—Counter.

Patinar—To skate.

Paujil—Wild turkey.

GLOSSARY: OUR OWN MAKE

Pave—Turkey.
Pave real—Peacock.
Perdiz—Partridge.
Permiso—Permission.
Picante—Literally, pricking; hot, peppery food.
Piña—Pineapple.
Piñal—Pineapple plantation.
Pisco—Grape brandy.
Platanal—Banana plantation.
Platano—Banana.
Pollera—Chola skirt.
Poncho—Hand-woven Indian blanket with slit for head.
Porte—Portage.
Porteviendo—Dinner bucket of three to six stories.
Postre—Dessert.

Quebrada—Ravine.
Que importa?—What does it matter?
Que remos—We want, we wish.
Quien sabe?—Who knows?

Rato—A short time.
Recova—Warehouse.
Recua—Mule train.
Residencia—Residence.
Rosal—Rose garden.

Sala—Hall, reception or drawing room.
Salitre—Saltpeter.
Salud!—To your health.
Si—Yes.
Sin falta—Without fail.
Soroche—Mountain sickness.
Especialista—Specialist.

Tallen—Shop.
Tocuyo—Muslin.
Toma—Intake.

Valiente—Valiant, brave.
Vamos á ver—We shall see, let us see.
Vibora—Poisonous snake.

Zapacala—Winged cockroach.

INDEX

Agualani River, 173
 "Alacitas," festival of, at La Paz, 56-58, 59
 Alpacas, 163, 164
Altiplano, the, 35, 77, 87, 96, 142, 148, 161
 Altitude, effects of high, 42, 115, 134-136, 137-139, 162
 American Institute, Methodist Mission School, at Iquique, 32; at La Paz, 84-87; at Cochabamba and its garden, 87-92, 94
 American Museum of Natural History, New York, 228
 American teachers in South America, 84-85
 Anderson, Mr., Pulacayo, 73, 74
 Angeworm, giant specimen, 237
 Anglo-Chilean Nitrate Corporation, the, 32
 Animal sacrifices at fiestas, 55-56; in connection with house building, 155
 Antofagasta, Chile, 24, 25, 34, 79
 Ants, 214, 250-255
 Apples, American, in South America, 86
 Araca, Bolivia, 115
 Araca mine (tin), the, 78, 96
 Arequipa, 270, 275-277; hospital in, 140, 150
 Arica, Chile, 31-32, 78
 Arica-Tacna Dispute, the, 31
 Aricoma glaciers, 162, 163
 Aricoma Lake, 163
 Aricoma-Limbani stream, 170, 171
 Asillo, Peru, 145, 146, 265
 "Asilo de la Gota de Leche," La Paz, 82-83
 "Asilo José," La Paz, 83
 Asterillo, Peru, 200
 Atahualpa, Inca Emperor, 304
 Autocarrils, 36, 148
 Avalanches, *see* Landslides
 Balsas, Indian boats, 159
 Bananas, 181
 Bandarani heights, 170, 183-185, 271
 Baptismal customs, 200-202
 Bates, Tia, 150, 275
 Bats, 230-234; vampire, 231
 Bayeta, native woolen cloth, 43, 80
 Bell, Mr. and Mrs., 120, 123, 124, 161, 229, 241, 306
 Bella Pampa, Peru, power station of Santo Domingo mine, 169, 170, 186, 187, 219, 231, 302, 309; fatal landslide at, 187-188
 Birds, 162, 239-243; "guano," 33
 Borax, 35
 Breads, native, 103
 Bricker, Mr., 137-139
 Brooke, Mr., 266, 268, 271, 272, 274, 275, 276, 277
 Brooke, Mrs. 218, 236, 266, 268, 271, 272, 275, 276
 Brown, Chester E., 291, 292, 295, 296
 Bushmaster snake, the, 244-245
 Butterflies, 227-229
 Calama, Chile, 34, 35
 Callao, Peru, 28-29, 268

Canaries, use of, for detecting gas in mines, 49
 Caracoles tin mine, the, 96
 Carnaval, festa of, 51-54, 118-119
 Carriker, Mr. M. A., 239
 Casa Santo Domingo, boarding house at Santo Domingo, 193, 196-198, 202, 204, 206, 219, 223, 233, 234, 235, 303, 309
Castilla, native dress material, 47, 79
 Caterpillars, 236-237
 Caxata, Bolivia, 96
 Centipedes, 236
 Cerro, Sanchez, President of Peru, 269
 Cerro de Pasco, Peru, 61, 218
 Chabuca, gold placer mining camp, 224-226, 245
Chalona (dried mutton), 56, 79
Chicha, alcoholic drink, 34, 46-47, 52
 Children, native, 28-29, 48; games of Bolivian, 152
 Chirimoya tree, the, and its fruit, 89
 Chojñacota, Bolivia, 96, 98 ff., 113 ff., 151, 157, 304-305; fiestas at, 54-55; scenic beauty of the road to, 96-97, 115, 117-118; carnival at, 118-119
 Chojñacota Glacier, 97, 98, 119-121
 Chojñacota Lake, 97, 98
 Chojñacota peak, 98, 101
 Chojñacota tin mine, the, 96, 100-103
 Cholos and Cholas (native men and women with foreign blood), 43, 44, 45, 47-48, 50-51, 59-61
 Christen, Mr. and Mrs., Tirapata, 147, 148, 259, 280
 Chuncos (uncivilized Indians), 200, 201, 288, 295, 297
Chuño (dried potatoes), 56, 79; preparation of, 125-126
Chupe (soup), native, 103, 141
 Chuquicamata, 95, 218; copper ore at, 35; hospital at, 68; number of miners employed at, 193
 Clinica Americana, Juliaca, 274, 277, 278, 279
 Cliza, Bolivia, market at, 130-133
 Clothing for South American use, 24, 218, 219
 Coca, the habit of chewing, and its effects, 44-45
 Cochabamba, 87-94, 114, 129-130; American Institute at, 87-92, 94; museum at, 129-130; markets, 130
 Cockroaches, 255-256
 Coffee plantation at Quitun, Peru, 181-182
 Collins, Charles, 291
 Condors, 239-240
 Conquistadores, the, 60, 160
 Convent of Santa Teresa, Cochabamba, 92-93
 Cooking at high altitudes, 65-66
 Copocabana, native baskets from, 81
 Copper ore at Chuquicamata, 35
 Corry, Mr., Arequipa, 147, 148
 Costumes, native, 35, 43, 47-48

INDEX

Crosses on South American trails, 172
Crucero, Peru, 142, 143, 162
Cuzco, 79, 160

Dancing at high altitudes, 114
Dansk, Miss, Direktora of Girls' School at Cochabamba, 88, 89, 91, 92, 93, 129, 130, 131, 133, 134
Dearing, Ambassador, to Peru, 268
Disembarking from shipboard at ports on South American west coast, method of, 27, 29
Dolls and toys, Indian, 56, 57
Dreams, native beliefs regarding, 156-157
Dress, *see* Costumes
Dyes, native, 79

El Misti peak, Peru, 270
Emery, Senator, 187, 291; chief stockholder of Santo Domingo mine, 301-304
England, tin mining and smelting in, 113-114
Equator, ceremonies aboard ship on crossing, 267-268
Estrada, Manuel, one of original owners of Santo Domingo mine, 289-293, 294
Eucalyptus, Bolivia, 96

Fawcett, Col. P. H., 295-296
Fernandez, Dr., Lima, 268
Ferns and mosses, 176
Fiestas, 50-58, 113-119
Flowers and foliage, South American, 29, 49, 80-81, 88-89, 171-176, 180, 181
Ford, Mr., of Grace & Company, 32, 33
Fruits and jelly and jam making, 66

Gareys, the, 42
Gates, "Swiftwater Bill," 137, 248
Gente decente (pure blooded whites), the, and racial distinctions in South America, 59-61

Gnats, 234-236
Gold: an ancient mine, 39-40; the process of extracting gold from the ore at Santo Domingo mine, 208 ff.; panning for, 220-221; "gold farms," 221; losing a gold brick, 271-273; accused of bootlegging gold out of Peru, 275-277; the story of the discovery and development of the Santo Domingo mine, 287 ff.

Granadilla, the fruit, 180
Grasshoppers, 237-238
Gray, Theodore, 292
Graybill, Dr. and Mrs., 229, 238, 241, 244, 266, 273, 311
Guano and guano birds, 33
Guaqui, Bolivian port on Lake Titicaca, 81, 158-159

Hardison, W. L., head of American company that purchased the Santo Domingo mine, 290-291, 292-293, 295
"High-grading" (theft of gold ore), 40, 305; stories of, 296-301
Horton, Mr. and Mrs., Cochabamba, 92, 93
Howell, Mr. and Mrs., 139
Huancamayo, 286
Huancarani, Peru, 140, 142, 164, 169, 170, 171, 172, 258, 280, 295
Huanchaca, Bolivia, 62-63
Huanchaca Company, the, 24, 74
Huanchaca House, Antofagasta, 34
Huanchaca mine (silver), Pulacayo, Bolivia, 37 ff.; strike at, 69-76
Huaytani, Lake, 122-123, 137
Humming birds, 239, 240

Illimani, Mount, 78, 101, 115, 125
Inambari Gold Concession, the, 288-289
Inambari River, the, 159, 170, 179, 186, 188, 200, 220, 221, 248, 282, 295, 304
Inca Empire, remains of, 160
Inca Mining Co., 294, 301
Inca Mining & Development Co., the, 160, 210, 301
Inca Rubber Co., 295, 301
Indians, loads on their backs the badge of servitude, 48-49; fear of water, 159; stories illustrating the stupidity of, 311-312; *see also* Cholos
Iquique, Chile, 32, 84

Jacaranda tree, the, 249
Jellyfish, myriads of, 33-34
Jesuits, expulsion from Peru, 304
Juana Fotosi peak, 78, 159
Juliana, Peru, 148, 149, 161, 270, 273, 274; in Juliana during a revolution, 277-279

Karatieff, Mrs., 134-135, 136, 152
Knitted and woven native articles, 79
Krause, Miss, 116, 117, 118, 134, 135-136, 137, 152, 241, 271, 273, 308
Kundt, Herr, head of the Bolivian army, 63

Lambert, Mr., Pulacayo, 67, 74, 75, 76
Landslides, 124, 187-188, 282, 284-285
La Paz, one of the two capitals of Bolivia, 77 ff., 95, 157-158; annual fiesta of "Alacitas" at, 56-58, 59; the Sunday Indian Market, 79-80, 158; the Plaza Murillo, 80; the Flower Market, 80-81; Market of San Agustín, 81-82; the "Baby Home" and the San José Orphanage, 82-83; the American Institute, 83-87

Laramcota Lake, 98
Laramcota peak, 98, 101
Laramcota tin mine, the, 96
Lead, 40
Leaves, huge, 244
Leche de tigre, alcoholic drink, 51
Leeches, 256
Lightning bug, an unusual, 238-239
Lima, Peru, 30-31, 267, 268
Limbaní, Peru, 142, 143, 169, 170, 171, 172
Limbaní River, 181
Lizards, 238
Llamas, 38, 140, 162, 163, 294

McCray, Miss, 121-122, 123-124
McGurk, Mr., U. S. Consul, 137
Macusani, Peru, 289, 290
Maldonado, Peru, 187, 200, 217
Manco-Capac, founder of Inca Empire, 160
Manta blanca (gnat), the, 234-236
Mantas, or shawls, 52, 79
Markets: at Pulacayo, 44-47; at La Paz, 79-82, 158; of Cochabamba, 130; at Cliza, 130-133
Mather, Miss, 26, 28, 29, 30, 31, 32
Maycumber, Mr., 112, 244, 247, 250, 253, 254, 256, 286, 312
Meat, use of, in South America, 45
Mice, 242-243
Millikan, the physicist, 123
Mollendo, Peru, port for Santo Domingo, 78, 269; difficulties of landing at, 27-28
Monkeys, 243-244
Montaña (or "Green Hell"), 162, 181, 186, 246, 289, 291
Monte Blanco, 98, 101, 121-124
Monte Blanco Glacier, 123
Monte Blanco mine and camp, 121, 122

INDEX

- Moths, 229-230
 Mountain sickness (*soroche*), 42, 115, 134-136, 137-139, 163
 Moving pictures, the natives and, 197
 Mururata peak, 78
 Muto San, Japanese electrician, 187-188, 191, 194, 195, 242, 243, 258, 193, 307-308
 Nitrate pampas and the export of nitrates, 34-25
 Nugent, Mr., 219, 250
 Nugent, Mrs., 244, 248
 Oconque, Peru, 140, 141, 164, 169, 179-181, 280-281
 Oranges, South American, 66, 81-82
 Orchids, Peruvian, 175-176
 Ore stealing, 101-102; *see also* High-grading
 Oroya, Peru, 188, 189, 219, 220
 Oroya suspension bridge, 188-189
 Oruro, Bolivia, 87, 96
 Othick, Mr., 126, 157, 158, 208, 233, 247, 282, 283, 297, 307, 308, 311
 Paiza, Peru, 28
 Palo santo tree, 140-141, 253-255
 Pampa Mina, Bolivia, 96, 115
 Panama, 266
 Parrots, 242-243
 Patiño, the Bolivian "tin king," 114
 Patra, Charley, 158, 307, 308
Perdices (partridges), 104, 275
 Pershing, General, 31
 Peru and Bolivia, boundary dispute between, 295-296
 Pisco, Peru, 54
Pisco, alcoholic drink, 34, 55, 118
 Piura, Peru, 28-29
 Pizarro, 31, 38
Polleras, Chola skirts, 47, 79
 Potato, Bolivia the birthplace of, and some of the varieties of, 126-127
 Potosí, Bolivia, 38
 "Potosí District," the, 38
 Pottery, Indian, 79, 130
 Pressure cooker, the, 66, 105
 Pulacayo, Bolivia, 24, 36, 59 ff.; the Huanchaca silver mine at, 37 ff.; market at, 44-47; fiestas at, 50-54, 55; strike at the Huanchaca mine, 69-76; number of miners employed at, 193
 Punatuma, Bolivia, power plant of Huanchaca mine at, 68; labor trouble at, 75-76
 Puno, Peruvian port on Lake Titicaca, 160, 161
 Quechua Indians, 38, 43
 Quimsa Cruz range, 78, 96, 101, 304
 Quinta Bates, Arequipa, 270, 275
 Quispe, Mariano, Indian discoverer of the Santo Domingo mine, 289-290
 Quitun, Peru, 140, 141, 170, 181-182
 Quitun River, 183, 186, 187
 Racial and social distinctions in South America, 59-61
 Rain at Santo Domingo so heavy that no raincoat or umbrella will withstand it, 218, 242, 309
 Rainfall records at Santo Domingo mine, 293
 Recreo, Peru, 144
 Reed, Dr. and Mrs., Juliaca, 150, 274, 277
 Revolution in Peru, a, 277-280
 Ritter, Friedrich, 214
 Rosario, 143
 Rose, a green, 180-181
 Rugs, Cochabamba (or Cliza), 132-133
 Saavedra, President, of Bolivia, 64, 75, 269
 Sagrario, Peru, 170, 185-186
 Sagrario Creek, 179, 185
 Salaverry, Peru, 29
 San Juan del Oro mine, 304
 San Pablo Mountain, 38
 San Pedro Mountain, 38
 Santo Domingo Camp, location and altitude, 162; description of, 193 ff., 223-224; rainfall at, 194; account of a big storm at, 281-286; damage by electric storm, 309-310
 Santo Domingo Creek, 179, 189, 190, 207, 235, 285
 Santo Domingo mine (gold), Peru, 162, 204; numbers employed at, 193; the process of extracting gold from the ore, 208 ff.; the story of the discovery and development of the mine, 287 ff.; stories of "high-grading" and other incidents, 296-301; taken over by Mr. Woods, 270, 305-309; spilling a crucible of gold, 310-311
 Santo Domingo Trail, the, a description of its scenic beauties, contrasts, and dangers, 168 ff.; flowers and foliage on the trail, 171-176, 180-181; declivities, 172, 173, 183-185, 190; dizzy heights and precipices, 177, 184; suspension bridges, 178-179, 181, 185, 188-189, 189-190, 282-283, 286; the most awe-inspiring part of the whole trail, 183
 Scarfs, native, 80
 Seep, Joseph, 291
 Servants, native, 49-50, 107-112, 136-137
 Shippee, Robert, 221, 222, 223
 Shippee-Johnson expedition to Peru, 221-222
 Silver, the Huanchaca mine, Pulacayo, Bolivia, 37 ff.
 Snails, 237
 Snakes, 244-250; some snake stories, 246-250
 Social distinctions in South America, 59-61
 Sorata peak, 78, 159
Soroche (mountain sickness), 42, 115, 137, 138, 163
 South America, "topsy-turvy" nature of many things in, 166-168
 South American hotels and the food at, 162-163
 Spencer, Mr., Santo Domingo, 296, 299
 Spiders, 236
 Stacpoole, Mrs., 215, 224-226, 236, 246, 274, 276
 Storm, a big one at Santo Domingo, 281-286
 Stretcher, Mr. and Mrs., 177-178, 274, 275, 276, 277, 278, 279, 280, 281, 285
 Strike at the Huanchaca mine, 69-76
 Students' interest in politics and political "strikes" of, 91-92
 Sucre, one of the two capitals of Bolivia, 77
 Superstitions, Indian and Cholo, 152-157
 Talara, Peru, 26, 27, 28
 Tambopata River, 200, 296
 Tanapaca, "rest home" of Araca mine employees, 125
 Tarantulas, 236
 Times, the New York, 114
 Tin mines, 78, 96, 100-103
 Tin, smelting of, 113-114
 Tirapata, Peru, 15, 147, 161, 257, 265, 270, 280, 295

INDEX

- Titicaca, Lake, 79, 81, 159-161; fish in, 159
 Tocuyo (native muslin), 195, 232
 Todos Santos, fiesta of, 51, 54
 Travel under difficulties at unfavorable sea-
 sons, 127-129, 140-150, 257-266
 Triunfo, 144, 280
Tunqui, brilliant plumaged bird, 240
 Tunquipata power plant of Santo Domingo
 mine, 190, 219, 229, 240, 283, 302, 309
 Tuss, Mr., 285, 286
 Uyuni, Bolivia, 35-36, 40-41, 74-75
 Vacations in high altitudes, 218-219
 Vampire bats, 231
 Velasco, Francisco, one of original owners
 of Santo Domingo mine, 289-293
 Vickery, Mr., of Grace & Company, 150-151
 Vicuñas and vicuña rugs, 163-164
 Viscachas, 104, 164
 Washburn, Mr., Direktor of the American
 Institute at La Paz, 87
 Washburn, Mrs., 87, 88, 136
 Washington State College, 16, 17
 Washington, University of, 17
 Whittaker, Mr., 137
 Women, not allowed in mines owing to
 superstition of the natives, 64-65, 101,
 204, 206, 292
 Woods, Clarence, marriage, 17; offer to go
 to Bolivia and departure, 19-20, 23-24;
 attack of *oroche* (mountain sickness), 25;
 accident to, at Punatuma, and subsequent
 operation, 68; acting manager of Huan-
 chaca mine, 74-76; leaves Pulacayo, 77;
 manager of the Chojñacota tin mine,
 99 ff.; illness with typhoid, 140, 150-
 151; acquirement of the Santo Domingo
 mine, 270, 305-309
 Woods, Lee, 157, 172, 173, 228, 241, 286,
 310, 311
 Yungas valley, Bolivia, the, 78, 82
 Yungling, Paul, 184, 287, 288, 289, 290,
 292, 293, 294, 301, 311
Zapacala, or winged cockroach, the, 255-256
 Zinc, 40

UNIVERSAL
LIBRARY



124 314

UNIVERSAL
LIBRARY